

The Gateways Project 2012

Land and Underwater Excavations
at Hare Harbor, Petit Mecatina
and Little Canso Island

William W. Fitzhugh
March 2013



Photo Contributions by Wilfred Richard
Produced by Richie Roy



Smithsonian Institution
National Museum of Natural History

Université 
de Montréal



Arctic
Studies
Center

The Gateways Project 2012

Land and Underwater Excavations
at Hare Harbor, Petit Mecatina
and Little Canso Island

William W. Fitzhugh
with Contributions by Erik Phaneuf, Vincent Delmas, Anja Herzog,
Jennifer Poulin, and Lourdes Odriozola Oyarbide
March 2013

Photo Contributions by Wilfred Richard and Erik Phaneuf
Produced by Richie Roy



Smithsonian Institution

Université 
de Montréal



Arctic
Studies
Center

Table of Contents

Field Location Maps		ii
Figure List		iii
Part 1	Project Goals, Acknowledgements, Strategies of Intervention	1
Part 2	Expedition Journal	5
Part 3	Hare Harbor-1	
	HH-1 Unit Descriptions	41
	HH-1 Excavation Summary	48
	References Cited	51
	HH-1 Excavation Maps and Profiles	54
	HH-1 Square Inventories	68
	HH-1 Artifact Field Drawings	76
Part 4	HH-1 Underwater Report 2012 Season <i>Erik Phaneuf and Vincent Delmas</i>	121
Part 5	Little Canso Island-1	
	LCI-1 Excavation Summary	131
	LCI-1 Excavation Maps and Profiles	135
	LCI-1 Artifact Photographs	147
	LCI-1 Artifact Field Drawings	153
Part 6	A Shipwreck (EhBl-a) in the Old Fort Archipelago <i>Erik Phaneuf</i>	161
Part 7	Underwater Survey Report of Select Brador Environs <i>Erik Phaneuf</i>	196

2012 Field Location Maps

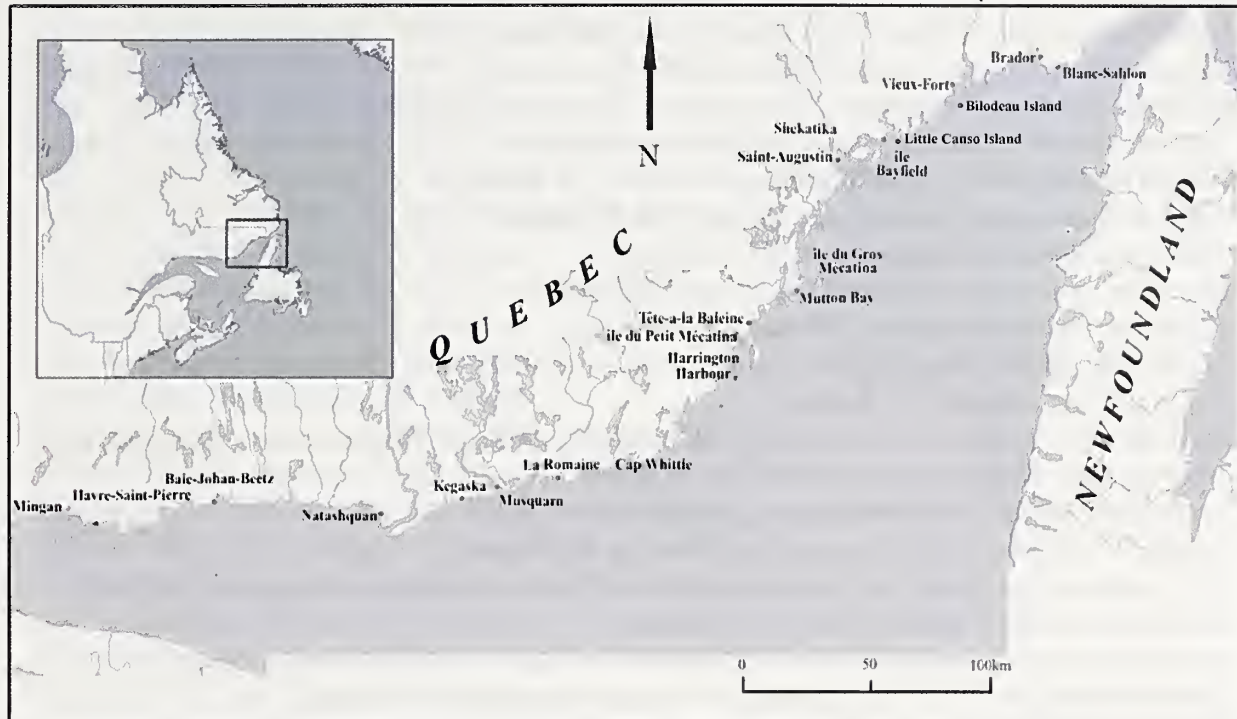


Fig 1.01: Area of research on Quebec Lower North Shore 2001-2012

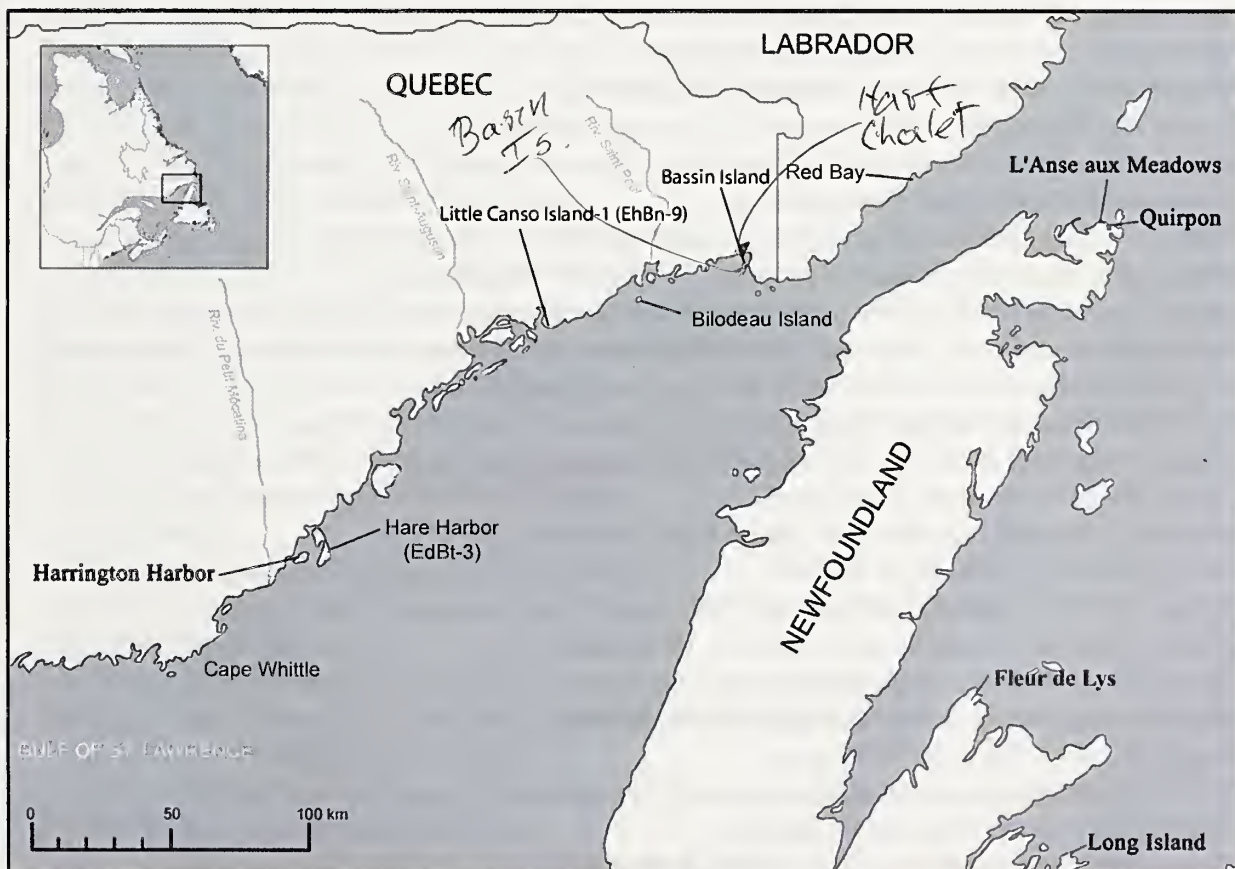


Fig 1.02: Map of areas visited during 2012 field season

Figure List

- 1.01 Area of research on Quebec Lower North Shore 2001-2012
- 1.02 Map of areas visited during 2012 field season
- 1.03 Pitsiulak crew after completing LCI excavation. Photo by W. Richard
- 1.04 View astern of the Atlantic Vision ferry. Photo by R. Roy
- 1.05 Bill and Phil Buckle at Chateau Bilodeau. Photo by W. Richard
- 1.06 Dwight Bilodeau enjoying a laugh. Photo by W. Fitzhugh
- 1.07 Humpback whale breaching. Photo by W. Richard
- 1.08 Some yard work at Hare Harbor. Photo by W. Richard
- 1.09 The first squares of the season. Photo by W. Fitzhugh
- 1.10 Slate flensing knife. Photo by W. Richard
- 1.11 Mussel picking. Photo by W. Richard
- 1.12 Fresh fish and crew showers at the Harrington Harbor Fisheries Cooperative. Photo by R. Roy
- 1.13 Drinking glass stem and base. Photo by W. Richard
- 1.14 Cutting new ground on an overcast day. Photo by W. Richard
- 1.15 Feature 7. Will's charcoal pit excavation. Photo by W. Richard
- 1.16 Perry sweltering in floater suit tending pumps for divers underwater. Photo by W. Richard
- 1.17 One of three chafing dishes. Photo by W. Richard
- 1.18 Dead capelin in seaweed. Photo by W. Richard
- 1.19 Ally and Sarah Vatcher-Evans enjoying the weather. Photo by W. Fitzhugh
- 1.20 End-of-season pig pile on the Pitsiulak for dinner. Photo by W. Richard
- 1.21 Mice babies on LCI. Photo by W. Richard
- 1.22 The whole crew at Little Canso Island. Photo by W. Richard
- 1.23 Whale bone sled runner. Photo by W. Richard
- 1.24 Reconstructed lintel of House 2. Photo by W. Richard
- 1.25 Dwight displaying part of his museum. Photo by W. Richard
- 1.26 Divers off to explore wrecks at Bilodeau Island. Photo by R. Roy
- 1.27 Old hands on Brador pier. Photo by R. Roy
- 1.28 Batman and Super(Wo)man preparing to surf-vey. Photo by W. Richard
- 1.29 Artifact cleaning at St. Anthony's pit-stop. Photo by W. Richard
- 1.30 Waiting patiently for the Ferry in Port aux Basques. Photo by W. Richard
- 1.31 Pitsiulak crew and the Colbourne Clan enjoy a feast at Colbourne home. Photo by W. Richard
- 1.32 Map of Petit Mecatina Hare Harbor-1 site. Section of map 12 J/11
- 1.33 View of 0N 16W. Photo by W. Richard
- 1.34 Sample of material from 0N 16W. Photo by W. Richard
- 1.35 View of 0N 18W. Photo by W. Richard
- 1.36 Sample of materials from 0N 18W. Photo by W. Richard
- 1.37 View of 0N 20W. Photo by W. Richard
- 1.38 View of 2N 18W. Photo by W. Richard
- 1.39 Sample of material from 2n 18W. Photo by W. Richard
- 1.40 View of 2N 20W. Photo by W. Richard
- 1.41 Sample of material from 2N 20W. Photo by W. Richard
- 1.42 View of 4N 20W. Photo by W. Richard
- 1.43 View of 4N 22W. Photo by W. Richard
- 1.44 Nails from 4N 22 W. Photo by W. Richard
- 1.45 Glazed ceramic from 4N 22W. Photo by W. Richard

- 1.46 Glass and stoneware from 4N 22W. Photo by W. Richard
- 1.47 View of 4N 24W. Photo by W. Richard
- 1.48 Sample of material from 4N 24W. Photo by W. Richard
- 1.49 View of 6N 16W. Photo by W. Richard
- 1.50 Sample of material from 6N 18W. Photo by W. Richard
- 1.51 View of 6N 22W. Photo by W. Richard
- 1.52 Sample of material from 6N 22W. Photo by W. Richard
- 1.53 View of 6N 24W. Photo by W. Richard
- 1.54 Sample of material from 6N 24W. Photo by W. Richard
- 1.55 View of 8N 18W. Photo by W. Richard
- 1.56 Sample of material from 8N 18W. Photo by W. Richard
- 1.57 View of 8N 22W. Photo by W. Richard
- 1.58 Sample of material from 8N 22W. Photo by W. Richard
- 1.59 View of 8N 24W. Photo by W. Richard
- 1.60 Lead wrapped nail from 8N 24W. Photo by W. Richard
- 1.61 View of 8N 26W. Photo by W. Richard
- 1.62 Sample of material from 8N 26W. Photo by W. Richard
- 1.63 View of 10N 18W. Photo by W. Richard
- 1.64 Worked window glass from 10N 18W. Photo by W. Richard
- 1.65 View of 10N 22W. Photo by W. Richard
- 1.66 Sample of material from 10N 22W. Photo by W. Richard
- 1.67 Iron from 10N 22W. Photo by W. Richard
- 1.68 View of 10N 24W. Photo by W. Richard
- 1.69 Lead knife handle and iron from 10N 24W. Photo by W. Richard
- 1.70 View of 10N 26W. Photo by W. Richard
- 1.71 Sample of material from 10N 26W. Photo by W. Richard
- 1.72 Quartz cobble and bottle-glass tool from 10N 26W. Photo by W. Richard
- 1.73 View of 16N 32W. Photo by W. Richard
- 1.74 View of 18N 32W. Photo by W. Richard
- 1.75 View of 20N 17-19W. Photo by W. Richard
- 1.76 Underwater site plan with 2012 operations in yellow
- 1.77 Top of ballast pile in SP-4 with diver excavating TPC3-1
- 1.78 The only artifact from L2, a non-glazed Sevillian jar sherd
- 1.79 Organic in L3 crushed under stone in center of TPC3-1
- 1.80 One of many rope fragments still in situ
- 1.81 The usual coopering artifacts: the top of a barrel and a hoop fragment still attached
- 1.82 First time found on the site: glass bead and lead shot
- 1.83 A complete nail and wooden handle of a knife
- 1.84 Leather shoes
- 1.85 Bird, fish, and mammal bones from L3 in TPC3-1
- 1.86 Examples of walnut, hazelnut (above) and cherry pits (left) in L3 of TPC3-1
- 1.87 Wooden bowl in situ
- 1.88 The first wicker erse found on the site; a second was found in TPD2-1
- 1.89 Porringer handle from HH-1 site (top) with Red Bay lusterware from Muel Aragon (EkBc-1-3329)
- 1.90 Three chafing dishes found in TPC3-1
- 1.91 The killick on deck and in situ, with a modern killick seen in Blanc-Sablon (right)
- 1.92 Five-point glass bottled from TPD2-1
- 1.93 Basque cooking pot with stamped band decoration. Pot at right from TPB-1

- 1.94 Sarai Berreiro-Arguelles drawing the stratigraphy of the north wall
- 1.95 Little Canso Island-1 (EhBn-9)
- 1.96 Caribou gouges and ulna bone drill. Photo by W. Richard
- 1.97 Six pieces of sled runner. Photo by W. Richard
- 1.98 Pottery strap-handle. Photo by W. Richard.
- 1.99 Copper piece. Photo by W. Richard
- 1.100 Concave copper piece. Photo by W. Richard
- 1.101 Reverse of concave copper. Photo by W. Richard
- 1.102 Soapstone lamp fragment with hole. Photo by W. Richard
- 1.103 Reverse of perforated lamp. Photo by W. Richard
- 1.104 Wrapped lead. Photo by W. Richard
- 1.105 Soapstone lamp. Photo by W. Richard
- 1.106 Bottom of lamp. Photo by W. Richard
- 1.107 Sled Runner. Photo by W. Richard
- 1.108 Caribou vertebrae. Photo by W. Richard
- 1.109 Whale bone with cut marks. Photo by W. Richard
- 1.110 Copper and lead jigger weight pieces. Photo by W. Richard
- 1.111 Lead jigger weight pieces. Photo by W. Richard
- 1.112 Iron balls. Photo by W. Richard
- 1.113 Pottery neck and strap. Photo by W. Richard
- 1.114 Pottery neck and strap 2nd view. Photo by W. Richard
- 1.115 Harpoon shaft. Photo by W. Richard
- 1.116 Iron blades. Photo by W. Richard
- 1.117 Fragment of stoneware bowl base. Photo by W. Richard
- 1.118 Large iron spikes and hook. Photo by W. Richard
- 1.119 Glass shards. Photo by W. Richard
- 1.120 Stoneware sherds. Photo by W. Richard
- 1.121 Chert flakes. Photo by W. Richard
- 1.122 Bone handle with iron blade. Photo by W. Richard
- 1.123 Stoneware sherds. Photo by W. Richard
- 1.124 More stoneware. Photo by W. Richard
- 1.125 Stoneware with handle (broken). Photo by W. Richard
- 1.126 Handle removed from stoneware. Photo by W. Richard
- 1.127 Canine's muzzle. Photo by W. Richard
- 1.128 Caribou teeth. Photo by W. Richard
- 1.129 Bone with cut marks. Photo by W. Richard
- 1.130 In the water, note depth-finder at bottom of image.
- 1.131 Mathieu and Marijo before their first survey
- 1.132 Sarai and Vincent with their now-tested boards.
- 1.133 Survey routes of Brador (left) and Bassin (right) bay.
- 1.134 Marijo beside crankshaft (left) and broken frame of S V Daisy (right)

NOTE: Independantly produced materials not included in figure list.

1 - Project Goals 2012

The Smithsonian-University of Montreal 2012 Gateways Project continued research on the Inuit occupation of the northeastern Gulf of St. Lawrence from ca. 1550-1750 and Inuit relations with Basque and other early European groups. This year's field activities included excavation of a midden associated with Inuit communal sod-house dwelling (S4) at Hare Harbor-1, continued exploration of Basque deposits at the HH-1 underwater site, and excavation of one of three winter houses at the Little Canso Island-1 Inuit winter village in Jacques Cartier Bay. Other activities included investigations at sites of underwater shipwrecks near Old Fort and Brador; although this work is described in general below in the field diary, details of these field projects are being prepared separately by Erik Phaneuf. As in previous years the project involved collaboration between the Smithsonian Institution and the underwater program of the University of Montreal. Work was conducted between 1-25 August.

The general goals of the Smithsonian's Gateways Project are to investigate the maritime-related prehistory and history of the Quebec Lower North Shore. During the course of surveys along the coast from Blanc Sablon to Mingan, the project has searched for sites related to the early Maritime Archaic Indian populations, Groswater and Dorset Paleoeskimos, Thule/Labrador Inuit, and European sites (Fitzhugh 2006). Specific goals have been (1) to clarify the culture history of the LNS; (2) determine the relationships of cultural components between Labrador, Newfoundland, and the northern Gulf of St. Lawrence; (3) investigation of the archaeological remains of early European settlement; and (4) enhance the preservation of LNS culture resources and heritage and potential for education, tourism, and economic development.

Hare Harbor-1 (EdBt-3)

In recent years, and as proposed for the 2012 field season, our goal has been to continue excavations at the Hare Harbor-1 (EdBt-3) site on Little Mécatina Island, between the communities of Harrington Harbor and Whale Head where we have conducted long-term excavations since 2002. The site was at first identified as a Basque station on the basis of large quantities of roof tiles, iron nails, paved work floors, both stoneware and earthenware ceramics. The discovery of underwater deposits of Basque origin adjacent to the site provided a unique opportunity for conducting archaeological research at a site comparable to the Red Bay site in Labrador (Grenier et al. 2007), but of course lacking an underwater wreck. As excavations proceeded we found signs of Inuit activity in a cookhouse (S1) in the form of soapstone pot and lamp fragments, and stains of soapstone lamps on paving stones. Subsequently we found the remains of earlier, 16th century, Basque materials with quantities of baleen and marmite cooking vessels beneath the floor of the cookhouse. Excavation of a nearby bog led to a blacksmith shop (S2), and beneath its paved floor we found the remains of an Inuit winter dwelling (S3).

In 2010 we found a second Inuit winter dwelling (S4) and excavated it, and in 2011, at the northwest end of the site are, located and excavated a partially-constructed Inuit dwelling (S5) that had been abandoned before completion in a part of the site that had been used as a charcoal production facility. We also found a midden deposit south of the entry way to S4, tested a charcoal pit at the western extremity of the site, and, while traveling back to Newfoundland, we located an Inuit winter village on Little Canso Island at the mouth of Jacques Cartier Bay. The 2012 season was dedicated to excavating the Hare Harbor-1 midden, expanding the underwater excavations around the central stone piles in the anchorage, and excavating one of the three Inuit houses at Little Canso Island. These latter activities are reported in detail below. The major issues motivating the 2012 research included: (1) the full excavation of the charcoal pit; (2) full excavation of the A8 midden so that its materials could be compared with those from the S4 Inuit dwelling; (3) testing the shallower underwater deposits around the top of the stone piles; and (4) determining the date and relationship of the Little Canso Island Inuit village to Hare Harbor and other Inuit occupations of the northeastern Gulf. Availability of a larger field team (see acknowledgments) enabled us to substantially increase the underwater excavation area with the goal of increasing our sample of Basque/European materials. In the following we describe each of these new research targets.

Little Canso Island-1 (EhBn-9)

Using the datum established last year, we set up a datum triangle 40cm above ground surface a meter north of the highest point on the east (rear) wall of House 2 and gridded out the interior of the house so that three 2x2m squares fell inside its walls. We did not have time to excavate beyond the house floor margins. Six units covered most of the house interior; a 2x0.5m trench was cut through the rear wall so we could obtain a wall profile; two and three-quarter 2x1m units were excavated along the northern wall to observe the extent of the house floor in that direction; one 2x2m unit was excavated north of the entry portal; two 2x2m units south of the entrance tunnel, and three 2x2m units covered the entry passage and its opening to the west. Excavations recovered ca. 125 artifacts, about half being nails or spikes used for wood floor and roof timber construction. Five gallons of bone was collected from a midden deposit south of the entry passage; there was no midden outside the house entrance. A few pieces of worked whale bone were recovered, but none was present as structural members of the dwelling. Log timbers must have been used for the house and entrance passage roofs, but their remains were not preserved.

2 - Acknowledgements

As in the past, the 2012 field project was made possible by an excellent team of University of Montreal and Smithsonian Institution personnel. Brad Loewen of the University of Montreal provided dredging equipment as well as financial support for dive team captain, Erik Phaneuf, and student divers Vincent Delmas (assistant dive officer), Saraí Berreiro-Argüelles, Mathieu Mercier-Gingras, Marijo Gauthier-Bérubé. Christine Puig Barrachina of Spain served as a visiting student excavator on the land site. Smithsonian volunteer Christie Leece participated in both underwater and land excavations along with other Smithsonian participants Christine Johnson and Richie Roy who conducted land excavations, in addition to Wilfred Richard, who also served as project photographer. Perry Colbourne served as *Pitsiulak* skipper and surface dive support and safety officer. Richie Roy composited the field maps and profiles from field notes and photos and served as the report's compiler and producer. Laura Fleming provided secretarial and illustration assistance and Marcia Bakry provided research, illustration, and production assistance. Partial funding came from Smithsonian and University of Montreal. Anja Herzog processed the collections at the Quebec Conservation Laboratory. We thank the Quebec Ministry of Culture and Communications for our permit and official project support and collection conservation services. As always, we thank the Colbournes of Lushes Bight (Long Island), Newfoundland, and Wilson and Christine Evans and many others in Harrington Harbor who provided hospitality and friendship. We would like to give additional thanks to Meagan LeBlanc who, in addition to Richie, was a great help in producing this report.



Fig 1.03: Pitsiulak crew after completing LCI excavation. Photo by W. Richard

Strategies of Intervention

The purpose of the 2012 was to excavate a large midden associated with the S4 Inuit winter house at the Hare Harbor-1 terrace front, to excavate half of the charcoal pit at the northwest end of the site, and to expand underwater excavations at the upper ends of the stone/ballast piles. If time permitted we planned to test the site's unexplored southern portion between S1 and the terrace front. We also planned to excavate House 2 at the Inuit Little Canso-1 site. Excavations employed similar strategies of intervention as in previous years. Our focus this season was to complete excavation of the Area 8 midden, sampled in 2011. Our methods included extending the site grid south over A8, clearing it of surface vegetation, systematic excavation, data-collection, and back-filling and stabilizing the site when work was completed. Other areas of the site remained untouched in 2012, with the exception of the charcoal pit (S7) which we intended to cross-section and profile, and the underwater excavations in the harbor area adjacent to the site, where we extended our earlier grids and excavated several new 2-meter squares. These excavations followed established protocols for land and underwater archaeology, with full photography, object plotting, excavation by troweling assisted by dredges underwater, mapping of features, and creation of stratigraphic sections.

Systematic Excavations: When research began at Hare Harbor 1 in 2002 we established a grid based on a datum at the top of the ledge bounding the southern edge of the site. Secondary datums were established as needed to facilitate measurements in the vicinity of Areas 1-8. In 2010 we established a datum on the western wall of S4, and in 2011 and 2012 we continued to use this as the basis for extending the grid into Area 8. The grid's northern limit ran along the 22 North line west to a large rock-fall boulder, and its southern limit ran along the 0 North line. In 2011 a trench was laid out extending south from the entrance of the S4 entry tunnel into an area where we found the A8 midden, connecting the latter to the S4 occupation. For both the land and underwater units, each 2-meter square was excavated according to stratigraphic levels and data were recorded photographically and on paper map grids. All rocks, features, flakes, tiles, and artifacts and samples were piece-plotted in three dimensions. A composite map was prepared and stratigraphic profiles were drawn for the important sections. At the conclusion of the work the land excavations were back-filled and stabilized with rocks and sod.

Processing, Analysis, and Reporting: All artifacts recovered were traced, plotted, numbered, and described in field notes, and interesting objects were photographed at the time of excavation and in lots by 2-meter square. A field catalog was prepared and everything was carefully packaged and delivered to the Quebec Conservation Center where Anja Herzog cleaned and catalogued the artifacts and where some of the more important pieces (primarily the underwater materials) were submitted for conservation treatment. All maps, and relevant photos and illustrations are reproduced in this field report. Technical analysis of materials is on-going at the time of this report and will be published in detailed monograph in the future.

3 - Expedition Journal 2012

Sunday, 22 July – Washington DC to Georgetown, ME. Christine Johnson and I departed from Washington on a quiet Sunday morning that was mercifully cool, following a week of temperatures in the high 90s and over 100°. The flight to Portland was 90 minutes. Shortly after entering the baggage claim we were met by Richie Roy's parents who had driven him up from their home in Newburyport, Mass. Christie Leece arrived from New York City a few minutes later, and we were all set with our bags on the sidewalk awaiting Will Richard to arrive in his trusty Volvo station wagon. Actually, Will had arrived earlier and was waiting for us in the airport, but we had missed him and were waiting on the curb outside. It took several calls to his wife, Lindsay, before we finally hooked up. On the way to his home in Georgetown we had lunch and an ice cream cone. Unpacked and resting at Will's and Lindsay's museum/home in the woods, we made final preps for the trip, but had relatively little to do because Will had organized the car phase of the trip down to the last detail, including buying heavy duty plastic bags to protect the packs we had to store on the roof. With the car jammed full and a mountain of gear on the roof we were ready for the 'traditional' lobster dinner which included some of the hardest-shelled lobsters I have ever seen, acquired as usual from Brent Perrow's rock-clinging home at the mouth of the Kennebec River. By the time we finished it was 11 o'clock and we all retired for a few hours of sleep.

Monday, 23 July – Georgetown to North Sydney 5am rolled around too quickly, but we managed to rise, drink some coffee and say goodbye to Lindsay, who was soon to replace us with a group of Greenlanders from Uummannaq who had been traveling in Maine and were about to depart home from Boston. The car was very heavily loaded and would not want to stop on a dime, but it seemed up to the trip. In a couple hours we had reached our usual breakfast place on Rte. 9, and by noon were at the Canadian immigration office in St. Stephen, N.B. The officers did not seem to mind our case of wine, but grilled us a bit about whether we needed work permits—apparently not, as no one is being paid and we are part of a research collaboration with the University of Montreal. They were also curious why we were traveling to Newfoundland if our work was in Quebec—so we gave them a little lesson in geography and told them about our boat. They were quick to understand, and in a few moments we were on our way.

Looming over us was the 8:30pm departure of the North Sydney ferry, which was a couple hours earlier than previous years' schedule. As we proceeded along the way we were frequently checking the clock and the distances, and soon found we would not arrive in time. So we did not stop for meals, only for gas, and fortunately found the highway pretty clear of obstructions and traffic. In the end, we pulled in to the ferry depot and found ourselves in a long line of vehicles. A call to the scheduling office revealed that the Port aux Basques ferry had cleared its lines and soon we heard its departure whistle. All the vehicles apparently were waiting for the next departure, for Argentia aboard *Atlantic Vision*. The next available Port aux Basques ferry would not be for another 24 hours, so we decided to make a circuit route to Argentia and from there to Gander, where we could pick up our air compressor and tanks, saving a trip in that direction from Lushes Bight. Tickets were available at an extra cost of \$450, but we would save lost time and get a full night's sleep. All this worked out and we found ourselves aboard sleeping in lounge chairs by departure time about 11:30. A huge caravan of mobile homes was also on the ferry, taking up much of the lower freight deck. One monster vehicle we had seen waiting in line was operated by a dapper fellow with a badge identifying himself as a mobile home tour guide. His machine was as long as a big trailer truck, and about ten feet high. We met him in the breakfast line in the morning and he gave us a run-down on their itinerary around Newfoundland. Also aboard the ferry was a band that performed traditional Newfie music, as well as a couple other bands en route to the Island for summer work.

Tuesday, July 24 – North Sydney to Gander By 7:30 Will and I had had enough of the windowless sleeping lounge and migrated to the common room one deck up and secured a couple of seats near electric plugs so we could work on the *Maine to Greenland* layouts Dana and Tish had provided. Soon Christie, Christine and Richie showed up and we went for breakfast in a nicely accommodated restaurant with a good buffet and lots of service people. These ferries are well-staffed, often with older people of retirement age—and all very friendly and chatty. The weather stayed calm throughout the crossing, and we got quite a bit of work done, while Christie made friends with some band members. Christine had a pile of electronic books on her Kindle, and Richie read hard-copy. We docked in Argentia about 4pm. I did not find much familiar with the location, even though I had visited it on my Navy ship, *Peregrine AD-176*, for a week back in 1966. At that time I was about to leave the Navy, with only a couple of months to go. My memory of the time was a weekend canoeing trip with a boy scout troop on a river with more boulders than water! We were in port from a break in our SOSUS underwater hydrophone and cable-laying operations off in the East Greenland Sea and on the Grand Banks, often operating in the fog.



Fig 1.04: View astern of the Atlantic Vision ferry.
Photo by R. Roy

The drive north to the Trans-Canada highway was only a few miles, and from there we passed across the Avalon isthmus and headed north through Terra Nova Park, reaching Gander about 7pm. Here we spent an hour renting a small U-Haul trailer and finding a hotel and then went to dinner at Jungle Jim's. The trailer deal was a great portrait of (uneducated) Newfie personalities; the place was staffed by a large, friendly fellow who had little idea about how to rent the trailer and had to call his buddy, a thin sketchy guy who arrived part-drunk ("only a few beers left in the fridge for the whole night"). The two of them started pecking at the computerized forms on the U-Haul website, but soon became stumped when the system would not complete the budget, so they had to call the owner, who also came from home nearby and in two key-strokes got the forms moving, and left three seconds later, affectionately calling his workers "idiots." By this time we had called Robert and Kelly Linfield, our Dive Master operators, about picking up the air compressor and tanks in the morning. Our motel had no AC, only a small fan, and no wi-fi; but at least the weather was cool and the price \$30 per room cheaper than the fancier hotels in town. This little Argentia leg was costing us quite a bit more for ferry, lodging, and meals, but we are at least not losing time and are saving the day we would have had to drive from Perry's to Gander for the compressor.

Wednesday, July 25 – Gander to Lushes Bight Morning came with easterly wind and spotty rain. After a Spartan 'continental' breakfast we drove to the Linfields, where Robert warned me they all had headaches and had been exposed to scarlet fever! Great news! They had been taking care of a niece who had the disease (I thought it had been eradicated long ago. Robert was being cautious in alerting us, but Kelly assured us he was over-reacting; in the end none of us got sick, and I hope they did not as well!) Since I had no more Canadian money we had to hang around their place while Robert and I tried to find a bank open. TD Bank was open but would not change more than \$200 because I did not have an account. After we learned the Bank of Montreal, where I did have an account, would not open until 10am, Robert agreed to accept US cash, which this year has only of slightly less value than Canadian. After hearing about the new house they were building near Lewis-

port, and news of the fishery (lots of cod, an improved sea urchin egg business, where Robert makes most of his money diving, sometimes up to 6-8 hours a day) we pulled out with the trailer loaded with compressor, ten tanks, three weight belts, and all the luggage from the Volvo. Three hours later we were at South Brook eating lunch at Eddie's Restaurant, but when the food did not arrive quickly we had to bolt with boxes of take-out in order to get to the Long Island ferry, which left at 1:30. This was a pretty large ferry, the *Hazel McIsaac* (named for a WWII WAC medical heroine), which was a "roll on, roll off" type, so Will would not have to back the trailer on. Whew! Once on Long Island we went straight for the dock and found *Pitsiulak* with a fine new blue and white paint job, and almost everything on board and ready for sea. Perry had done a great job with preparations, including installing some new LED lights, a medicine chest in the head, a plush new captain's chair, and other improvements. Soon Perry showed up in his big red pick-up and we had a proper welcome. Louise and their three daughters (Tracy, Jane, and Jill) were off accompanying Louise, who had been diagnosed with cancer a couple months ago, on a trip for chemo treatment in Grand Falls. They arrived back on the evening ferry just in time for a big feed of lobsters, crab legs and grilled steak, chicken, and home-made bread—enough for two day's worth of eating, and it took us that long to polish it off.

The Colbourne "compound" was over-flowing with relatives who had returned "from away" for Long Island Day (last Saturday). Tracy's family (with two kids), and Kay were back (she has a new teaching post in NWT- it's sandy and dirty with lots of ferocious dogs, but at least not the social disaster of the Indian community of God's Lake where she'd been a couple of years earlier). Over the winter Perry has completely rebuilt his kitchen, removing the wall between it and the doorway, making a larger dining table and adding a dish-washer. Really nice! But of course everyone was piled into the living room, where we saw pictures of Jill's and Matthew's new "sea-doo." Both have good jobs now, Matthew on a tug and barge hauling freight from the Great Lakes to Newfoundland (big tanks for a new refinery in Avalon) and Jill at her med-tech lab in Corner Brook. Britney and many others showed up during the course of the evening. All were really pleased to see Christie again and meet our "newbies," Richie and Christine. We caught up with lots of other Colbournes too, and heard of some with medical difficulties, like Andy's sleep apnea which requires him to wear a breathing mask at night. Nan has had eye surgery but is doing well, thought she isn't out wandering around the neighborhood as much as before. Stephen also has some medical issues. I had a brief conversation with Melvin, home for a couple weeks from his Fogo Island ferry job and expressing interest in another *Pitsiulak* trip to northern Labrador, if that ever takes place. Dennis was off duty from the Long Island ferry for two weeks and had amassed a mother load of 'subsistence' codfish; we caught him with a load of offal and heard that there were lots of big codfish on the go.

Thursday, July 26 – Lushes Bight Will and I got off on the early morning ferry, had breakfast at Eddie's, and arrived in Springdale just as the Bank of Montreal was opening. This time I did not lose \$1000 like last year, only \$250, but it still was not like the old days when we'd make 5-10% on the American dollar! The supermarket run set us back \$475, and paying bills over in Triton at Budgell's and the hardware store cost me another \$1000. I was able to pick up some iron rebars for use as grid stakes for the underwater excavations, and they were also selling 5-gal. buckets—always a scarce commodity for digging and shipping artifacts.

One problem we are going to have when we return is what to do about winter boat storage. Perry says the Triton 'marine service center' (now a successful diamond-drill rig production facility and not a boatyard) is planning to evict all boats, and maybe us, though in the past they have been willing to make us an exception. However, now they may want to ditch the marine lift. No one quite knows the outcome, and they may be trying to win some concessions from the government, which will get lots of pressure from fishermen not to eliminate this crucial service. If they do, we will have to go to La Scie, Twillingate (Perry's choice), or Port Saunders (which would be better for any future work we do in the Gulf, eliminating a couple days travel, but making Perry's work on the boat difficult).

With some hustling we were able to make it back to Long Island Tickle in time for the 1:30 ferry. Lucky for us, because on the next trip the ferry hit the dock and ripped a hole in her side, fortunately above the waterline. Nevertheless, it shut her down, will require welding a plate over it and will require lots of paper-work and inspections, so who knows when she'll be operational again—just when Tracy and many others need to be leaving the island to get back to work. Perry attributes the accident to poorly-trained or inexperienced skippers, but also observed that the ferry has to make scores of landings every day, in all sorts of conditions.

Perry had got the rest of the gear on-board, so I spent the late afternoon catching up on email and other chores. After dinner, the kids went out for sea-doo rides in the harbor, and later had a bonfire and roasted wieners and toast. A LOT of wieners got eaten! Will and I caught up briefly with Maurice (doing volunteer renovations at the heritage center in Beaumont) and Barb, and had a conversation with Kay and a couple of friends, one of whom also has been teaching for years in the Arctic, including at Great Whale River and may have been there in 1967 when I was there with Elmer Harp and Jack Rinker. Her stories of Inuit-Indian racism in that mixed community were gruesome: refusing to mix socially or even shower in the gym at the same time. We also heard and saw pictures of the amazing masses of Petermann ice that arrived to block the bay and tickle, shutting down the ferry for weeks in September, and about a pod of killer whales that had been terrorizing the local bays.

Friday, July 27 – Lushes Bight to Quirpon We were up and away by 6:15, finding a light southwest breeze, which by the time we reached the Horse Islands got a bit feisty, causing us to get everything stowed properly. Crossing the big bay between here and the Grey Islands we saw the usual groups of porpoises, but no whales and not a single ice berg, unlike last year's parade of Petermann ice. Only one fishing boat (near La Scie) and only one large ship exiting St. Anthony. Soon after the Horse Islands we had to put the speedboat on a short leash to keep it from running down the waves, and we could not extend her until north of St. Anthony. This cut our speed to about 9 knots. Nevertheless we arrived in Quirpon about 8:30 to find Boyce and Michelle had left a car for us on the pier. Its Michigan plates alerted Will to the connection, and there was a note inside. They had gone off to Cape Norman to roam about the lighthouse with her visiting relatives. We tied up, noting a fancy yacht had pulled in and a longliner beside us whose outboard was within an inch of taking water over the stern and sinking. We made ourselves comfortable at Boyce's and were entertained a bit by Paul, the Parks Canada LAM guide, who told us about the 2-week festival they'd just finished at the site this summer, and a fairly strong visitation so far. But on the other hand many old hands had been let go or were shifted from interpretation to maintenance, a result of PC budget cuts. We'll try to visit the site on our return in August. For now the weather is good and we need to keep moving.

Boyce and Michelle returned about 9:30 when we were in the midst of eating a spaghetti dinner they'd prepared for us ahead of time. Boyce had been working on ice road maintenance in the northern Alberta oil fields during the winter, which this year was quite mild. He's not ferrying guests to the Cape Bauld lighthouse B&B this year, but seems to have lots of other jobs. Michelle is into her last two years of work for Nfld Bell telephone and has been shifted to security section, much more interesting for her than supporting line repairs! We had a great discussion for a couple hours while each of us ducked out serially to check our email on their computer and tasted a bit of Boyce's 'everclear' chilled by popping sound of air bubbles from the glacial ice he had stored away. Toward the end of our discussion Jamie, her son Nick, and her husband dropped in to say hi. Nick is turning into a proper Newfie—full of questions and developing a bit of swagger, with Boyce as his obvious mentor and model! The news on the fishing front was not as good as in Lushes Bight—not many fish around Quirpon, but those present are large. Harp seals seem to have been more or less normal this winter and spring, and there were many around in the fall. I'll be curious to hear the news on the harp pupping situation in the Gulf when we get to Harrington. One interesting thing I learned was their habit of climbing high up on the Petermann ice, as long as it was not too steep and had a waterside ramp access. Maybe they just love the view from up-top! We got back to the boat about 11:30 and bedded down quickly, so quickly we did not notice when Boyce came to collect his car.

Saturday, July 28 – Quirpon to Bilodeau Island We arose at 5am to find light winds from the northwest. Outside the harbor we found the conditions fine for crossing the Strait of Belle Isle, and very soon everyone but Perry was back napping, or in the case of Will and me, working on the *Maine to Greenland* layout that Tish and Dana Levy had provided just as we were leaving home. This is quite a complicated task, involving picture placement, changes to captions and pictures, call-out citations in the text, and re-arrangement of sections of manuscript. Will had started on chapters 7-10 and I was doing 1-6. By the time we reached Blanc Sablon we had completed our portions and were ready to swap. The crossing remained calm, and a number of whale sightings were made. As we passed Lourdes de Blanc Sablon we made a call to Florence Hart to let her know we would be back and work at the Hart Chalet Inuit site in the latter part of August. She was out but we left a message; perhaps Clifford Hart is now in a nursing home. We saw only one fishing boat off Blanc Sablon, probably fishing for crab. Passing B.S. we got into fog as the temperature of the Gulf water rose. En route to the St. Paul River where we planned to stop briefly to meet Dwight Bilodeau at his family's summer place on Bilodeau Island (part of the Dog Island group), we passed one vessel, unseen in the fog. The wind dropped and soon we entered the tannin-brown St. Paul River channels. We did not know exactly where to find Dwight, but when a group of houses appeared we anchored and went ashore to make inquiries. The first person we met happened to be Dwight's sister, who took us to a group of houses on "Salt Water Pond," where Dwight lived. He was not home, but he soon appeared, motoring in from town along with his wife, Elaine, and Phil Buckle. Phil had come out to show Dwight where Jacques Cartier had "crossed" the land, etching a cross into the rocks and filling it with molten lead. According to Phil, in the old days fishermen would go to this location to dig out lead for fishing weights! The exact location, Phil seemed to indicate, was a bit vague, but they were going to search for it on the headland nearby. We'll see if they had any luck when we return here in a few weeks! My bet is this hunt will turn out like most others of this sort—the Margaret Cave, for instance—stories without issue!

Our meeting was quite interesting, and a bit unusual in that we were the ones on shore hailing the unknown arrivals, laden with goods and groceries from town, about ten miles to the northeast. Dwight and



Fig 1.05: Bill and Phil Buckle at Chateau Bilodeau. Photo by W. Richard

his wife live out here from May until late September, and proudly call themselves "island people," having grown up here during the summers, part of a big crowd of closely-related families who could live mostly off fish, clams, and other local resources. All the old houses out here were gone now, and those that remains, with a few exceptions, seem in various states of disrepair, among them a store shed and dock. Their cottage is simple but comfortable, with a small iron stove, sitting area, a couple bedrooms, and a workshop. The latter also served to-house Dwight's rather remarkable collection of old stuff—some of recent generations, but also artifacts he has collected from the shore or underwater. In a quick glance I spotted pieces of Basque tile, a few pre-historic tool fragments, clay pipes, and a few other pieces, like a brass kerosene lantern, a grindstone disk, old velvet dresses, the bowl his mother used to make bread, and even an old ledger book from his father's store containing detailed record of goods traded, including seal-skins (a dollar apiece!), from the 1940-50s. It's a veritable mini-museum, and Dwight is clearly out to garner as much old historical material and information as he can. This extends to his knowledge of local

history and the old sites about which he is collecting information. He describes himself as a ‘natural historian,’ and clearly this is an accurate notion, as his interest covers all aspects of the locale. He had not heard of Henri Puyjalon, the 19th century naturalist of the Mingan Islands, I guess because he wrote in French, and Dwight expressed only a limited ability in this language – a somewhat peculiar situation considering he lives in Quebec; but it seems that here, as in Harrington, most people are English-speaking and of Newfoundland or British settler ancestry. Dwight expressed some frustration in trying to engage Quebec authorities in developing the historical resources of the region. He had heard of Jean Ives Pinal and Pierre Mackenzie’s work along the coast, and of René Levesque’s earlier work, but has not read much academic literature because most of it is contract-based and all is written in French. He is very enamored of Cleophas Belvin’s *The Lost Labrador*. One thing he was emphatic about was having no interest in locating a “Margaret cave” site in the St. Paul region. “Let Harrington have that one!”



Fig 1.06: Dwight Bilodeau enjoying a laugh. Photo by W. Fitzhugh

he exclaimed. But Cartier’s cross is another thing! After a lively discussion we went off to look at the location of the wreck he has been curious about, which is in the next cove to the south of Salt Water Pond, surrounded by islands and shoals but open to the southwest. The water here is about 20-30 feet deep and you can often see the wreck, although it was too overcast and dark during our visit. Although open to the southwest, there are many islets and shoals breaking up the seas from that direction, so we should be able to have a safe and accessible dive site. He says many artifacts can be found scattered on the bottom across the cove, and several wrecks may be present. He has dived on the site often, and apparently also in many other locations among the islands. He also said that there are house foundations in the village (tent rings, it seems—although whether Innu or Inuit was not clear) and a trade site with many artifacts, including Basque tiles. Among the artifacts I saw in his workshop were fragments of tile and Basque marmite vessels similar to ones we’ve found at Hare Harbor.

We returned to the Pitsiulak about 6:30 for a dinner of shepherd’s pie that Christie and Christine prepared, and had a discussion about the interesting events of the day and prospects for fruitful work when we return here with the diving team in a few weeks. During the evening a light breeze came up, rattling the anchor chain across the bow. We had to assure the new-comers that this was normal and not the sound of a dragging anchor! Like other areas of the coast the Dog Islands have seen more prosperous days, and today’s inhabitants have turned a bit nostalgic, not for the past, but in remembering it! Most of the houses around SW pond are more camps than dwellings, and unlike those around Nick Shattler’s area in St. Augustine, there does not seem to be the same sense of a summer fishing economy here—more a refuge from town in the wide-open spaces. They have a bit of satellite phone connection, but no cell-phone service!

July 29, Sunday – Bilodeau Island to Hare Harbor We rose to a red sunrise and partly cloudy skies and got underway quickly, passing the big boulder and running directly north to the high mainland hills. Turning west we skirted them for a hour, passing some interesting inlets and coves that look to have good site potential, but of course actually getting ashore and surveying them would be another matter altogether. The grey rocks, all lumpy and hummocked back into the interior would be tough to traverse on foot, and as Jacques Cartier observed of this very same coast “there is hardly a cartload of earth” and hardly anything is growing except lichen! It would not be much fun to be a 17/18th C. Inuit family camped here, always imagining that Indians would

swoop down upon them from these hills. We passed in quick succession, Baie des Homards (Lobsters), Shekatika, Mistanoque, and then the Canso Islands where we hope to excavate one of the Inuit houses Nick Shatler found, and we tested, last year. Then past L'Anse aux Portages, and into Cumberland Sound, and from there into the passages of the Grand Rigolette. While in one of the narrows near Nick Shattler's cabin we stopped to hailed a man who appeared on his porch taking a picture of us, to ask what VHF channel people here use for local communication so we could try to raise Nick. "Channel 10" came the reply, so we tried that, and got an answer from a woman who said she thought Nick was back in town. I tried his home number on the sat phone and left a message that we'd see him in a couple of weeks. As we passed Gros Mécatina and La Tabatière we found people out fishing and pulling lobster traps; it was Sunday and the sea-going weather was ideal, much better than we expected from the forecast, which called for strong southwest winds. They never materialized, and halfway across Whale Head, with the Catholic church standing tall in the summer village of Providence, we ran into a group of the most playful humpbacks I've ever seen. There were five or six and they were leaping, rolling around holding their flippers—glistening white—high in the air and then slamming them down onto the surface. The display continued even as we steamed right through them, as though they had no concern about us in the world. One whale we were heading toward moved aside to let us pass at a safe distance at the last moment. This was quite a nice 'welcome' as we approached Petit Mécatina and the Hare Harbor site, and by then the sun also had come out and the surf- and ice-scoured granite shores were a bright tan color. We anchored in the usual spot and after sorting gear headed for shore to open the site and get our grid established.

Everything at the site was as we had left it, except that erosion from the water falling from the cliff had washed quite a lot of gravel down into the Structure 5 'house' area. Also someone had removed our grid apparatus, used to photograph each 2x2m square. We set about clearing the tall grass, ferns and horse tails, almost waist-high and got the site more or less 'civilized', then started digging where we had left off in the A8 midden. Almost immediately we began finding nails, Normandy stoneware, Christie found a glass bead, and Will an iron rod, possibly a drill shank. Other than a mounting army of black-flies as the afternoon progressed into evening and the sun dipped behind the cliff, the only local partner to show a face was a small toad, which I tossed at Christine, producing a strong (negative) reaction. "I don't mind toads; I just don't want to touch them!" We heard a few chirps from a red squirrel, but so far no peregrines were cruising about. It was a gorgeous afternoon, even hot when the sun was on us. Perry had immediately launched the Liberty inflatable ("zodiac") and had taken off on the outer shore to investigate the bakeapple situation. He found the little motor still up to its trick (cutting in and out) even though we supposedly had that problem repaired—a new power pack. It's a bit dangerous when you're in the boat alone as you could be left behind when it cuts in! About 7pm (Nfld time) we returned to the boat and Will prepared a spaghetti dinner (à la Lindsey's sauce) with Christie doing a garlic bannock. The evening was quiet, and we often thought how much life would change on the boat in a couple of days when the Quebecers all arrive, boosting our capacity to eleven! Anyway it was fine to be back here, looking at the little flashing light at Providence, and they now doubt, were noting "the Americans are back" through their cabin windows across the bay. Now for the big decision—whether to stay on Nfld time and have light in the evening, or to join Quebec and the Eastern time zone and have the sun shadow darken the site at 3pm, and darkness descends at 7! We noted all the lobster traps have been pulled and stacked on the south shore of the harbor, even though we heard the season still had a few more days. Oh yes! Yesterday a huge ant was observed crossing the pilothouse floor. It escaped before we could kill it. I thought we were rid of these die-hard colonists, now in their



*Fig 1.07: Humpback whale breaching.
Photo by W. Richard*

third year surviving winter on the boat. They must be hoarding food down below to survive ten months of empty nesting! (So far, as of 11 August we have not seen another ant!)

Monday, 30 July – Hare Harbor

The night was quiet, but morning came with the muffled sound of fog. We had a slow breakfast of oatmeal with raisins and then headed in to dig. By mid-morning it had burned off, but the weather remained cool and cloudy but at least was not foggy. In short time we were pulling in quite a few artifacts from the four units we had opened: Christie working the south half of Se-rai's 4S/20W unit, Richie in 10N/22W, Christine in 8N/22W, and Will in 6N/22W. From these indications (quite a bit of Normandy stoneware (including bottom and rim sherds), the bottom of an earthenware jar, a fishing weight made out of a large iron spike wrapped in a sheet of lead, a large iron blade fragment (?), a blue seed bead, glass and many nails, we are going to recover lots of good stuff, maybe all along the front of the bank, certainly justifying the decision to return to the site. I hope the divers have the same results.



Fig 1.08: Some yard work at Hare Harbor. Photo by W. Richard

and approached the site. I thought it must be people from Providence alerted to our arrival by seeing the boat's lights last night. But no, when they got close I recognized Helen Morrency, her husband Miles, and son Jake. They were returning from a weekend at their cabin in from Whale Head and saw the *Pits'* mast as they passed the entrance of our harbor. We weren't supposed to be here, after all, having made "extended goodbyes" as Helen observed, last summer. Christie had been in touch with Alexandra (Ally) Evans by email this spring, but perhaps word did not spread very far. It was fun to see them again, but the visit was short as they were hurrying back to Harrington for Jake's swimming lesson. Back at the boat lunch was warmed up spaghetti. By the look of it we're going to be short of real food before we go in on the 1st. Maybe tomorrow we'll go for mussels up at the head of the harbor. Miles straightened us out on the bakeapple situation. When Perry returned yesterday after his first "berry" reconnaissance he gave us a grim outlook ("not much better than last year," which was a disaster). Then he produced a quart for us to use for dessert. But Miles reported more berries that he's seen for many years! Ever the protector of his berry-field claims, Perry had been leading us on. We had a similar reaction from Dwight Bilodeau's sister when our speed boat approached her island with us dressed in orange survival suits. Before we told her we were on a mission to find Dwight, she thought we were tourists on a bakeapple mission and shouted accusingly, "Are you berry-pickers?"



Fig 1.09: The first squares of the season. Photo by W. Fitzhugh

The afternoon's diggings brought many interesting finds. Several of the squares, like Richie's (10N/22W) and Christine's (8N/22) produced large numbers of iron nails and spikes, and several unusual iron pieces like a

large rectangular blade-like piece, a possible chisel hammered from a nail head. 10N/22W also produced two large fragments of Normandy stoneware vessels, a small fragment of bright yellow glazed earthenware, as well as bubbly green and aqua-tinted glass. 8N/22W was full of iron nails of all sizes, a stoneware rim piece, white glazed EW, and an indigo-colored seed bead. Will Richard's unit (6N/22W) had pockets of midden between large rocks: tile fragments, an iron rod or drill bit, a fishing sinker made from a large iron spike with a sheet of lead wrapped around it (certainly an Inuit contraption!), and the base of a Normandy SW vessel. Christie Leece was digging the southern half of 4N/20W and had a bonanza of finds: several blue beads, different types of EW (including a strap handle), a plain EW rim and a vessel base, and strangest of all: fitting fragments of an extremely thin ground slate flensing knife blade made of rather soft banded stone. This piece seems to be the portion from the handle end of a blubber knife. One fragment was standing straight up, vertical, between two pieces of roof tile. The other was lying flat beneath roof tiles directly below the vertical piece. Both sides were finely polished, and in some places you can see grinding striations and small pecking marks. This is clearly a Thule culture implement, not Dorset (because of the shape and drilled hole) but how it arrived in an Inuit/Basque deposit (the midden from Inuit house (S5)) is a great mystery. It could not originate directly from Thule people and be in a ca. 1700 Inuit dump, mixed with Basque and later West European artifacts. It might have been brought here as an heirloom by the Inuit occupants of S5. In any case it is the southern-most Thule artifact I know of and is another remarkable find, like the Dorset and Maritime Archaic points we've found at Hare Harbor previously.

By 6:30 (Newfie time!) it got cold and we retreated to the boat for a dinner prepared from some unmarked cans we'd dredged up from Perry basement, left over from previous summers. We have little food aboard now except big cans of beans. These cans turned out to be refried beans, so we heated them up, made some mac and cheese. The wind died down and we called it an early night, tired from the unusual exercise we've been getting crouched in our squares, cutting heavy blocks of sod, and buckets of dirt. Perry lamented the old days when fishermen and fish were bold, strong, and large, those days were indeed something special, but their likes probably will never return. More down to our current earth, we have a remarkable amount of inch-long caterpillars at the site. They are crawling over everything—across the artifacts we are digging, up blades of grass along the sides of the squares, and into our clothing. Where are the predators?

By 6:30 (Newfie time!) it got cold and we retreated to the boat for a dinner prepared from some unmarked cans we'd dredged up from Perry basement, left over from previous summers. We have little food aboard now except big cans of beans. These cans turned out to be refried beans, so we heated them up, made some mac and cheese. The wind died down and we called it an early night, tired from the unusual exercise we've been getting crouched in our squares, cutting heavy blocks of sod, and buckets of dirt. Perry lamented the old days when fishermen and fish were bold, strong, and large, those days were indeed something special, but their likes probably will never return. More down to our current earth, we have a remarkable amount of inch-long caterpillars at the site. They are crawling over everything—across the artifacts we are digging, up blades of grass along the sides of the squares, and into our clothing. Where are the predators?

31 July, Tuesday – Hare Harbor This was a wonderful day. I was still on Nfld time, and so got up a reasonable period after light began appearing – I think it was 6:15 by my watch, but for those who have changed to Quebec time, it was 4:45. No wonder I had trouble rallying the troops, even after Will's bacon and sour cream pancakes started coming off the griddle. It all has to change tomorrow when we go into Harrington and have to 'get real', with the chronometer. Then it will be Erik Phaneuf who is champing at the bit in the morning. Will's pancakes gave us a leisurely start at the day, which seemed like a 'free' day anyway, since we had made a good start at the site yesterday. So when the sun burned off the light fog we were on shore and at work, with few mosquitoes and a light SW breeze. Soon after we were ashore Perry headed off in the Avon to bakeapple fields up the east side of Mecatina, around the location of the waterfall, where it seems he took a bath in very cold water. Most of the bakeapples around the shores were over-ripe, but those on the hills were perfect, and in some areas turned the slopes orange. What a change from last year!



Fig 1.10: Slate flensing knife. Photo by W. Richard

Work progressed steadily, but with fewer special finds than yesterday. Christie's half square (3N/20W) turned out to be very deep and full of stuff to the bottom and had a level that was packed with roof tiles about halfway down in the deposit. She recovered an EW vessel bottom with glazed interior, a Normandy stoneware rim and bottom fragments, a fluted marmite strap handle, white and blue and white glazed EW fragments, and a off-white glazed EW sherd with narrow rust-colored bands around the body (I've never seen this decoration before), also some flint/chalcedony strike-a-light flakes, and a blue seed bead. She finished up toward the end of the day and started a new square to the west of her old one, but this time it was a full 2x2m unit, and in turving she uncovered large piece of stoneware, a decorated pipe stem, and a chert flake.

The other units plugged along slower than yesterday because they had got down in among the beach boulders, and finds were in the pits between the rocks—a big nuisance to dig. Most of the finds were nails, but a few interesting things showed up. Will (6N/22W) has an overlying deposit of brown sand above the black earth midden in the western side of his square; this looks like burned hearth earth we found in the upper squares last year, so perhaps there will be a big hearth west of his square. His finds included an interesting lead-wrapped iron spike—an impromptu “Inuit-style” manufacture for use as a fishing sinker; the distal end of a second specimen

also was found. In addition he recovered an iron rod (possibly an auger bit?) and a possible blade or point made of iron. A Normandy stoneware cup bottom also turned up. Richie's square 10N 22W produced a small hearth in its SW corner, several paving slabs in the north, and artifacts included large pieces of stoneware, bubbly green glass, a small lenticular blue bead, and a large rectangular piece of iron that might have been a wood plane blade. Christine's unit (8N/22W) had finds in pockets between large beach rocks, including a stoneware jar rim, an iron rod (possibly a drill bit), and two or three glass bead types, including an indigo seed bead and a red Cornaline d'Alleppo bead. I opened up 8N 18W at the NW corner of the big boulder south of S5 and



Fig 1.11: Mussel picking. Photo by W. Richard

found quite interesting material in deposits full of charcoal, tiles, and small chunks of burned rock: a perforated lead pendant, fragments of a stoneware bottle top, mica, pyrites, and earthenware. Will also finished his unit and shifted to 10N24W, west of Richie's square, and Christie began turving 4N22W. Everything about this Area 8 deposit looks like a midden associated with the S5 Inuit winter house.

When the tide was down after lunch, we ran the Avon over to the head of the harbor to collect mussels. Even though close to shore and in shallow water, many mussels were large and coated with pink corral encrustations. This is the same coralline algae that Walter Adey is collecting for climate and ocean history. It was a bit treacherous on the slippery rocks, and there were a few missteps; but in a half hour we had a full five-gallon pail. We spend the rest of the afternoon working in the shadow of the cliff and returned to the boat an hour before sunset with several of our squares finished, or nearly so. Dinner was the pot full of mussels—extremely tasty as usual, especially along with two bottles of Will's wine. The SW breeze remained warm and brisk through the evening, and the moon was nearly full. Loons have been calling around the harbor, but we haven't seen them land near the boat. Another bird event of the day was a mass of gannets and gulls that appeared in the bay east of the harbor entrance, perhaps evidence of a school of capelin; if so this is probably what the whales were so excited about on our passage south of Whale Head.



Fig 1.12: Fresh fish and crew showers at the Harrington Harbor Fisheries Cooperative. Photo by R. Roy

Wednesday, 1 August – Hare Harbor to Harrington Today began even better than yesterday in terms of weather – no fog and only a light SW breeze. Perry had brought the *Avon* aboard last evening, so we were ready to depart for Harrington right after breakfast. It was fun cruising past the Cape Antrobus and Trap Cove and into the Harrington channel and seeing the familiar town buildings emerge from behind the rocks. We had not even reached the pier before people started to gather, surprised to see us here again. Several of the fishing vessels were at the pier, and from them we learned that the fishery has been excellent this spring. It's been the best lobster year anyone can remember, perhaps because the warmer water temperature. Cod were plentiful and continue to be fished

even though the quota has been filled, through the sentinel program. Turbot and halibut have been plentiful, and we saw many larger fish being unloaded during the afternoon. Best of all the fish plant will remain open for at least the next few weeks when we will want to buy fish and use their shower facility. I have not yet heard about the seal hunt, and shall be very curious to see what happened with the births and pupping.

Also at the pier was a large sloop named *Hillary*, an Oyster 41, owned by Steven Swanson and Sandra Eberle and home-ported in Portsmouth, NH. They cruise northern waters every summer and keep their boat at Twillingate Marine Service Center, operated by Feron Clark. In the winter they cruise in another boat they keep down south. I got to talking with them during the evening while I was waiting for our Quebec team to arrive. Both have lived in Washington DC and worked at government jobs years ago, she at EPA and he for the American Petroleum Institute and later operated his own company. They are now returning to eastern Newfoundland after having cruised to the Mingan Islands. Perhaps they will visit us at Hare Harbor on their way east.

We spent much of the day with Christine and Wilson Evans and their daughters Alexandra (Ally) and Sarah. The day started with a welcoming coffee with fresh-baked scones; then a delicious lunch of fresh greens and tuna, crab, and chicken sandwiches; and finally, showers and clothes washing. It was great to see them again after having thought our project was over. The girls have grown up so much, with Ally about to go off to Quebec (Concordia) for fine arts schooling—she's a fine textile artist and sells her work on the web—uses Israeli produced spun “cashewool”), and Sarah off to Chevery where she will finish high school. I called Lynne and found her relieved to have me call on a land-line rather than the echoey satellite phone. She says her work the forest protection plan has been going well and is finding much local support, and even tacit approval from the Town Council, which controls the logging decisions. The down-side of the summer has been the destruction of her vegetable garden by the deer and small rodents; the former leveled the sweet potato plants and the latter topped all the carrots and left them lying in neat rows. At the Smithsonian Lauren was making great progress with Inuit Studies planning, and Will found out he could have many more pictures in his Smithsonian ISC exhibit than he originally thought.

At about 8pm our Quebec team arrived on the water taxi from Chevery. Erik, Mathieu, Vincent, Marijo, Serai, and Cristina, four with double bags of diving gear and wearing 30-40 pounds of lead around their waists to cut down their plane surcharges! At that point we realized we have 12 rather than 11 people on board and that instead of two women it would be three: Marijo is “Mary-Jo” not “Mario”! I had bought a large halibut at the fish plant and we made a stew for the grand arrival dinner, and when we got everyone assembled it was clear there

could not be a galley dinner arrangement; we'd have to use both galley and pilothouse. And what to do with all the diving and personal gear? And then there is the sleeping arrangements—three in each stateroom, three on 'my' pilothouse floor, and four women in the galley. As I'm writing this everyone has finally got into their sleeping positions, been instructed on using the bathroom, and is headed for a most interesting first night on board, with a certain added flavor—quite a few mosquitoes have found their way into our slumber chamber.

Thursday, 2 August – Harrington to Hare Harbor At 5am the barge moored near us on the pier got noisy loading construction materials they were taking down the shore, so there was not much possibility of sleeping later than 5:30. Getting the boat organized with all the bodies lying around took some doing, as people had to get up to provide access for stowing bedding beneath where they were sleeping. Eventually we are all on our feet eating oatmeal and drinking coffee, which we had to make in two batches in our small pot. Lloyd Ransom helped cast our lines off. He had been Rev. Bob Bryan's handyman for many years and last year got us some lumber for making a grid square. He looked in great health, but he reported that Bryan had been in Harrington twice this year, once in the winter and again in spring, and he doubted he'd be back here again because his legs are in bad shape and his doctors have told him they can't do replacement operations, because of his age and weight.

The crew had a great time on the ride out to Mecatina, watching for whales and porpoises and sitting on the afterdeck kibitzing. I got a good snapshot of the group lined up like bowling pins while they were seated on the edge of the dingy. Once in the harbor we launched it and got the land crew off to the site, while Perry and Erik, Sarai, Vincent and Mathieu got the dredges and dive gear organized. They had a very successful first dive and found the underwater site in good shape, just as it was left last year, with its pins and lines all in order. The water was very clear, but 46F below 50 feet, and much warmer above that. They will start trenches across the upper end of the ballast piles, an area we have not previously excavated. The shore crew continued our earlier work, with several new squares getting started.

Lunch was a soup prepared by Vincent from the halibut leftovers and tuna sandwiches, and a green salad. For the afternoon Sarai shifted to take Marijo's place on land, and Erik and Vincent checked up the newcomers on the dredge sites, but without them operating yet. The land team had some good success. Christie's new unit (4N/22W) continued her string of finds with the most outstanding being a fancy medicine bottle and some cream-colored earthenware with narrow gold-colored zig-zag designs. Marijo and Cristina's unit 6N24W produced several fine pieces of which the most surprising was a Groswater Dorset celt made of chipped and ground slate, and soon after than an exquisite chert microblade. These finds are not unique as we found a small GW hearth on the upper beach, but the new finds provide more control on the sea level at that time by being found on a much later (lower) terrace. Sarai then turned up a small lead ornament with tabs bent over on the backside to attach it to clothing or something else. More evidence of Inuit-style ornamentation! For some reason we have found very few copper artifacts. My square west of the large boulder (8N/18W) produced pipe stems, a bit of EW and SW, and a perforated piece of lead that seems like a clothing ornament. Christine and Richie finished their units (10N/22W, 8N/22W) and opened new ones (10N/24W and 8N/24W), and I turfed 10N/18W, along the south front wall of S5 Inuit house, and immediately found a large whalebone.

The day was hazy and humid in the morning and sunny in the afternoon. Surf could be heard pound-



Fig 1.13: Drinking glass stem and base.
Photo by W. Richard

ing on the outer coast to the SW, but we had no wind in our harbor. It was so warm we worked until 7:30 and returned to a fine dinner of roast halibut, carrot salad, and rice. Somehow we managed to stuff all twelve of us around the galley table, though the body heat and lack of ventilation became unbearable after a while. Tonight the moon is full, the wind down, and the mosquitoes ferocious, and the sparkle-watchers soon discovered. All in all it was a great first day with the combined teams both at work, eating, and general boat life. Everyone is very compatible—a lively bunch, with Erik acting as the spicing agent! A few mackerel were feeding in the harbor in the morning and he managed to hook one, but it got away. Otherwise, no major animal sightings. No peregrines have surfaced on the cliff, but they may still be quietly harboring their young. During our afternoon break I hiked along the south ridge of the site, on the waterside, which I had never inspected previously for sites—a possible area for Inuit graves. I found lots of ripe bakeapples but no sites turned up. We have six 3-pound lobsters waiting for us in the cooler, doing fine and awaiting lunch tomorrow.

Friday 3 August – Hare Harbor It breezed up a bit last night, but by morning it was just a light southwest wind and a bit of fog. As the day progressed there were patches of sun and blue, but they gave way in the afternoon to a fog that was almost like rain. Nevertheless it was warm and not unpleasant working weather, until it got too wet to make notes about 6:30. By then we were getting cal-calls from the *Pits*, where the divers were anxious to cook the lobsters, one of which did not survive because it got buried in the fresh water from the melting ice. The six divers tried out a new program today, making two dives instead of one each morning and afternoon, by splitting into two teams. This doubles the working time with one person on each dredge and a third roving for assistance with recording and for photography. They started in the morning on a 2x4m trench across the top of the two largest ballast piles and a second 2x2m on the west side of the largest stone pile. The only finds returned to the boat today were a razor clam, and very old and wise-looking quahog (hardshell) which sat on the deck thrusting its large foot in an out and its siphon gasping in the fog. I've never seen such an active guy as this quahog! The razor clam got cooked and tasted like a steamer clam. The quahog, fortunately, went back into the water. The upper trench has already produced fish bones and wood chips, but appears to be a thin deposit. Other than artifacts, we will sample fish bones and any other bones encountered, and wood chips. It's too bad that the ballast rock preliminary study to identify the origin of the rocks in Europe, failed to get traction, mostly because the limestone—contrary to expectations—did not contain any fossils.

Onshore there were only five of us working: Will, Richie, Christine, Cristina, and me. Will found some unusual materials, including an ornamented pipe stem and a small soapstone ball about the size of a musket ball, and several pipe stems. Richie found an onion-style green glass bottle base whose rising side had been chipped into a knife edge, a possible small knife blade of iron, and a small triangular ground slate point, broken at the tip and midsection, that is probably a Thule product, although without a drilled hole it one cannot be certain. Like the other Thule flensing blade, it was associated with the S5 midden materials, so can't possibly be from a previous Thule occupation. It seems unlikely to be Dorset or



Fig 1.14: Cutting new ground on an overcast day. Photo by W. Richard

Groswater. Christine had found a spiral black on white bead yesterday, but today found mostly nails. Cristina's big finds were a 10cm piece of mica and a fishing sinker made with an iron nail encased in lead to make a net or fishing sinker. Unlike the nails wrapped in a sheet of lead found yesterday, the lead appears to have been produced in a mold with a nail at the center. My square between the big boulder and the wall of S5 produced a too-deteriorated-to-save fragment of an Inuit soapstone lamp, a rim fragment of a large iron pot, and the base of an earthenware bowl with yellow glaze. Otherwise we all found spikes and nails. The bugs were challenging in the morning, but by afternoon the combination of wind and wet fog kept them away. I tried out a new footwear solution (prompted by forgetting to change from sandals into rubber boots when I left for the site after lunch), using ziplock bags over my socks to keep my toes from dragging in the dirt when I was digging. It worked like a charm and provoked a strong reaction when I displayed the new fashion upon returning to the boat for dinner. The latter was lobster! Lunch was a delicious soup made from the remains of the halibut and some spicy chicken wings. These meals are a special treat made possible by the divers, who return from their hour in the water and between filling tanks and processing samples and making notes, usually able to find time (especially Erik and Vincent) to prepare meals. Both are great cooks, so we eat like kings and do lots of dish-washing.

By 7pm the weather really turned foul, with colder air and strong western wind driving a thick, wet fog. We are not unhappy now being cooped up inside, even though Christy discovered there are lots of sparkles (bioluminescent photoplankton) in the water. Out there somewhere above the fog is a nice full moon.

Saturday 4 August—Hare Harbor This was perhaps the perfect day for fieldwork! Sunny, warm, but not too hot, and only light winds. We got an early start, up at 5:30—well after sunrise which is at least a hour earlier. Christie looked down at me as I was loading the coffee pot, fearing I would grab for the oatmeal (yes, indeed!) and offered to make French toast. So it was a great breakfast and quick too. We got off to the site at 7:15 and the first diving contingent was not far behind. I don't think I ever was on-site earlier, and it took awhile for me to adjust my eyes to the low morning sun angle and black soil.

During the course of the day Will, Richie, Christine, and I finished our squares and moved on to new ones. We are now starting to make a dent in the terrace front and are finding it a productive area, even though it seems to be just a midden and not a habitation area. Most of the objects are coming from pockets of soil between the medium to large sized boulders that form the terrace front, creating a patchy impression on the maps. Rather than the debris from work areas, the region seems to have been a dump for materials cleaned out of the S5 Inuit winter dwelling. We have not found any hearths or clusters of materials representing dwellings. Tiles and artifacts are frequently found in vertical position, and usually even nails that could have been embedded in timbers that fell with them in vertical position, are almost always found in horizontal aspect. There is no observable cultural or natural stratigraphy, only a homogeneous charcoal-stained black earth soil from immediately beneath the turf, to the sterile sandy soil between the beach rocks. Much of this soil has the eroded sand and mineral grains from the surface erosion of the beach rocks. The only stratigraphy we have noticed is the present of Groswater (and in a single case, Thule) artifacts at the base of the black earth interface with the sterile beach sands.

Lunch was waiting 'on the table' when we returned to the boat about 12:00 and consisted of soup and tuna salad sandwiches. The divers had had two sessions in the morning and got their units working, with fish bones and wood chips showing up. Erik made acquaintance with a lumpfish, a rather ugly creature whose female gender fills nearly her entire abdominal cavity with roe, and it's for this that they are fished and loved especially by the Japanese. The afternoon stayed warm, with the wind shifting from southeast to southwest. Will, Richie, and I shifted up to the 'industrial' area at the northwest end of the site to finish our work on the charcoal pit and a possible hearth to its south. Our work here last year had been flooded out by rain-water. Will began by excavating the western half of 22N/32W, the eastern half of the charcoal pit, and did a fine job outlining the pit and cutting in a northern and western profile. There were many rocks in the pit fill, but when it was cleared Will found it had been excavated into fine light brown sand that had no rocks at all, only in the pit fill. The stratigraphy clearly

showed the pit outline, a 20-30cm thick layer of pure charcoal at its bottom containing pure chunks of carbonized wood, overlain by 20-30cm of alternating charcoal and grey sandy soil up nearly to the ground surface. These layers must have resulted from repeated charcoal-making episodes and/or charcoal and sand washing into the pit from the bank to the north. The west wall profile cut through the middle of the pit and showed it to be about 2m in diameter. The western half (in 22N/34W) is still in site and will be excavated tomorrow. This part of the pit has been made inaccessible by a huge slab of cliff-fall that fell onto the pit, covering its western portion. A single roof tile was found embedded in the bottom of the charcoal level. When we excavated a test pit in the western part of the pit in 2008(?) Will found half of a light blue lenticular bead in the charcoal. Richie turfed 18N/32W, where I thought we might find a large hearth pile, but so far only a thick layer of brown sand appeared beneath the sod. I began working on 20N/32W between Richie and the charcoal pit, hoping to provide a link between the two.

Toward the end of the afternoon Perry and the divers took the speedboat over to the waterfall cove to the north to see if they could find more bakeapples, but they returned empty-handed. Most of the berries have turned now and are pale and tasteless. The dinner they prepared upon returning was a fine spaghetti with the last of our hamburger meat, followed by a bakeapple crumble. This led Christie provide us with here theory of the distinction between a 'crumble' and a 'crisp'—the latter having more butter and the former more milk (or was it the other way around?). Lots of mosquitoes around tonight because the wind has dropped to a light westerly. This morning we broke a Pits record for getting out working on the site—7:15.



Fig 1.15: Feature 7. Will's charcoal pit excavation. Photo by W. Richard

Sunday 4 August – Hare Harbor

Up at 5:30, I found Erik fanning the fishing rod over a mirror-like harbor, with not a ripple stirring here or from what I could see, or the bay outside. I cooked up some Red River cereal for the crew, who like to call it 'bird seed', but all agreed it is quite tasty. We tied our site arrival record of yesterday and put in a long morning. Two teams of divers made progress on the trenches and uncovered a large ceramic vessel that they are hoping to remove in the afternoon. All is going well underwater, although Perry is has to spend an inordinate amount of time—four hours each day—tending the pumps and riding herd over the divers, all the time having to wear his survival suit. In addition to a major case of boredom, sometimes he returns to the boat with a headache. Will, Richie, and I completed work on the charcoal pits and 'hearth' pile. The pit is about 2x3 meters in size but we could only explore part of its



Fig 1.16 Perry sweltering in floater suit tending pumps for divers underwater. Photo by W. Richard.

western portion (in 22N/34W) because a large slab had fallen on this part of the pit. The stratigraphy here was obliterated by the test pit we excavated here previously. My unit (20N/32W), of which I only excavated the NW quadrant, revealed a thin surface humus layer overlying a layer of peat that represented the original pre-Basque ground surface, and below that, sterile beach gravel. Richie also excavated only the NW quadrant of his square (18N/32W), finding rock fall blocking progress. Nevertheless even with only a portion of this square excavated we determined that the layer of brown soil beneath the surface was backfill from the original excavation of the charcoal pit. The southern half of his square had been excavated deeply, but we could not determine why and did not have the time to investigate this further. By lunchtime we had completed this work and prepared several profiles of the pit and squares to the south, and photographed the environs and stratigraphic sections.

Lunch was another fine soup and sandwiches, thanks to our divers' early return. They returned to the water for two more sessions in the afternoon, and returned with fish bone samples, a large fragment of a globular bowl (marmite?), and the pedestal base and bottom bowl fragment of a brown-glazed soup tureen or something similar having a wide foot and pedestal base. This is a very strange and unique find.

Back ashore, us 'landsmen' continued at the A8 midden area. Christine (2N/24W) pulled lots of interesting materials (unusual glazed and unglazed EW vessel bottoms and rims, a knife blade and handle), a raised cross or tree motif on EW. Cristina (8N/24W) found mostly nails, but also a fairly passable iron knife blade, and several Groswater flakes and tools: two burin-like implements and a couple microblades—these materials on the interface between sterile soil and the black earth levels. Richie opened 0N/20W and began finding artifacts right away; I started turving 0N/16W and immediately found many roof tiles and several flat slabs that look like they are intended as a walkway up from the bank. This area is the natural site drainage and is often saturated with water.

When filling the tanks at the end of the second dive session Perry had them check the oil level in the compressor. It was a bit low and so a small amount of 'oil' from a glass jar labeled "compressor oil" was added. While filling the next tank, a lemon smell alerted the team that something was amiss. When the oil bottle was checked it was found to be lemon-scented dish-washing soap. Whoever put soap in the jar did not think to change the label. Erik alerted me to the problem when I returned from shore, noting that an accident may have ended our diving program, only four days old. We stewed over this all evening in sometimes heated discussions with Perry, trying to assess what kind of damage might have occurred, whether we could continue use with contaminated oil (no!), and how to fix the problem. The best option seemed to be to drain and replace the oil, but we had only a half-liter of fresh oil. In the morning the matter became clearer when I called Robert Linfield to ask his advice. His best guess was that we could drain and replace the oil and continue without causing any damage. Getting enough oil (it's rare and expensive!) was the next problem. Fortunately when I called Wilson Evans, who has his own compressor, I found he had enough spare oil to give us a liter. The next problem was getting to Harington, which can't be done today as the weather is a miserable windy sou'wester with fog so thick it drips off you after only a minute outside. Hopefully, tomorrow will be a good travel day. By that time we will also need to re-charge our pantry and water supply. This plan broke a major pall that had descended on everyone for the past twelve hours.

The rest of the evening was fairly uneventful. The weather remained nice and the crew watched a movie on a computer. Supper was beans, chili, and rice, with the second pan of bakeapple crisp. We have been running the generator in the evenings to charge all the computer and camera batteries, and freshen up the ship's batteries. So far we have avoided the voltage drop that has plagued our projects over the past few years. Perry's having installed LED lights has probably contributed to much of the energy savings.

Sunday 5 August – Hare Harbor In the middle of the night I heard a scraping sound on the deck and then a crash and all manner of strange sounds after that. All of us in the front of the boat awoke wondering what this could be. I hustled outside and discovered garbage all over the starboard deck and pop and beer cans roll-

ing around. I collected the mess and got back into bed only to hear another can dancing around on the foc's'le roof, back and forth with each roll. Finally secured, we had the rest of the night clear, other than a rising SW wind which by morning was a foggy storm wind that kept us in bed until 8am. Fog was scudding along the dark hillside at about 20 knots. After breakfast and making calls to Robert and Wilson, both parties ventured out. The divers returned with very good subsistence material—cherry and plum pits, a possible bay leaf, a flake of chert, and many fish bones. The shore team was less successful as we were drowned out by the dripping fog. Nevertheless we got a bit of earth moved even though we could not record, photograph, or make notes. Will stayed aboard and made photos of the dive team's finds. For lunch it was grilled cheese in pita bread and a soup from left-over beans and veggies. Erik, who has many historical archaeology articles on his computer, found an image from a shipwreck with the 'tree-like' design we found on a sherd yesterday, attributed to the Medieval France.

Monday 6 August – Hare Harbor 6am rolled around looking grim, with a wet fog and strong SW wind swinging us back and forth on the anchor. We weren't going to rush out to dig in this weather, so I turned back to bed until 8, when I got up and called Robert Linfield and Wilson to talk over the compressor oil problem. We have moderately good news there. After a couple of hours catching up on notes, reading and doing dishes, we all got antsy and decided to make a stab at digging. The divers—wet anyway—didn't care one way or the other. But once we were installed in the dig pits, with fog-rain dripping from our hats, it became obvious that work was not sustainable; no notes could be taken, people were gradually getting wet, and the wind was getting stronger. So we returned to the boat and took up other tasks, like making a big lunch. I spent much of the day catching up on this journal and going through the Dana's pdf of *Maine to Greenland*. Will was also compiling a list of corrections



Fig 1.17: One of three chafing dishes. Photo by W. Richard

and suggestions. About 4pm the younger crew wanted to hike, so I took them to shore, where they spent a couple hours foraging for the last of the bakeapples and inspecting the broken-down cabin on the south shore of the harbor. They also built a wonderful inukshuk on the hill above the cabin. It was pretty foggy, so I gave them a VHF radio to communicate with our ship's radio. A couple hours later they were lined up on the shore with a scavenged oar, a couple quarts of bakeapples, and some very good pictures. Will and I spend the evening (it's quite short these days—for by the time dinner dishes are done there's only an hour before the witching time. People start dropping off to bed after 9 or 9:30.

Tuesday 7 August – Hare Harbor to Harrington After a day of stormy weather finally the fog is over and some clear air is blowing in from the southwest. But it's still quite strong and surf is pounding on the Providence islands across the bay. We decided to burn four tanks of air this morning with two on each dive, counting on being able to fill after repairing the compressor tomorrow in Harrington. This worked out pretty well, and it gave the land team a few extra hands both morning and afternoon. Our squares now extend south across the terrace front almost to the bank path at its southern edge, and they are still producing good material. I worked on 0N 16W and found myself just north of the drainage from the upper beaches, and lots of roof tiles have been tossed down in the spaces between the beach rocks to provide drier footing. These tiles rest on sterile peat or mud. At a later time an alignment of slabs was laid down as a more formal pathway, but this does not seem to be a formal pavement. Downslope and two meters to the west, Richie had a similar pattern, although he seems to have some midden material; my square so far produced mostly pipe fragments. While we were measuring elevations, Christy turned her ankle on a rock and was out of commission for the rest of the day. I finished recording her

square's artifacts, which crested well over 100. Many plain earthenware sherds, and quite a lot of faience glazed wares. The other squares were in the 'clean-up' stage and few artifacts were being found.

When we arrived at the boat for lunch, Erik greeted us with a feigned expression of complaint about the morning's finds underwater. But a cheshire grin kept sneaking into his pitch, and we soon forced him to give us the straight skinny, which was amazing. In the upper pit they had found the top of the strange bowl they found yesterday. This piece had strap handles and on the top of the rim, three lugs with expanded tops. This might allow it to hold a chafing dish on the lugs; alternatively they could provide a means of hanging the bowl from the ceiling if the bowl served as a lamp; or it could stand on its flat round base on a table. No one recalled having seen any vessel like this in a publication, and certainly not in the Red Bay collection. Our best guess is that this vessel is a lamp for a bowl or chafing dish. The piece was covered with brown-green glaze. Well, the surprise was that this morning they found a duplicate, intact vessel as well as the missing portion of a globular vessel they found nearby. Many other finds (fish and bird bones, botanical remains, etc.) were also recovered. Definitely a red-letter diving day.

Lunch was a fine concoction of spaghetti and wieners, and hot lemonade. We've now polished off all our potable water and are having to boil the ship's tank water from Harrington, whose water has been suspected for several years of contamination. In the afternoon we returned for a few hours of work, with Mathieu and Sarai helping as there was no more air for diving. By 5pm the wind had dropped and we piled back into the *Pits*, brought aboard the Liberty raft and stowed all gear for what I thought would be a rough voyage. It turned out that there was less wind outside than in Hare Harbor, and we had a very smooth trip in, arriving in Harrington at 7pm, just in time to meet Paul Rowsell coming down to open his store for the evening. He looked great and we had a spirited discussion about why we returned. I did not have time to ask him about this past winter's sealing, but he did say the cod fishing was something near spectacular, that there were many more and larger fish than they had seen for several decades. Later on we had a short chat about the harp seals and he said no one went out sealing last fall and there was very little ice—so little that for the second year in a row the *Nordik* continued to provide service throughout the winter along the coast to Blanc Sablon and back of Natashquan. Usually she has to suspend service from December until March. He heard nothing about a spring seal hunt, but that takes place in the southern Gulf and does not involve Lower North Shore hunters. We returned to the boat for a frozen pizza dinner (the Harrington bar-restaurant is closed) and a couple bottles of sweet fortified wine that kept the conversation going until late in the evening.

The surprise of the day in terms of animal sightings was the shark we passed quietly fining at the surface about twenty feet from the boat, a sight I've never seen in northern waters, nor has Perry, who missed it and disbelieved our claim. But all of us on the cabin roof had a good look at this creature, which was swimming on the banks south of Cape Antrobus where gulls and gannets were feeding. The shark's narrow tail was raked backwards and was showing about a foot above the water, and the dorsal fin, about three feet away was a sharp black triangle above the water. It was not traveling fast, rather appearing more or less stationary.

Wednesday 8 August – Harrington to Hare Harbor The Harrington pier remained quiet all night, with only the mosquitoes at work. We were up at 6:30 and started on cleaning and re-stocking while Will made bacon and pancakes, which were excellent even without his beloved sour cream. Vincent tended to filling the fresh water tanks; others carted garbage bags to the dump closet on the pier; the girls took a load of laundry to Christine's; and Mathieu and I did our laundry in a bucket of hot water from the fish plant. When the fish plant opened most of the guys availed themselves of the shower stall. Glancing at the drain, it is always surprising to see how much dirt we collect! Other chores were quite expensive: taking on 1200 liters of diesel at \$1.51/liter set us back \$1800, and the grocery bill at CMR Sales was \$2400. Paul had a big smile on his face, saying he fully expected us to be back next year. I would love it, but this will take more subsidies than we have now. I informed the Nursing Station that we would be sending back their oxygen bottles from Blanc Sablon. At Christine's we found the

family busy hosting a group of young Alberta students who were in Harrington on an exchange program. Wilson was giving them rides in his catamaran. It was a perfect day for sailing. I called Lynne and found her enthusiastic about her forestry preservation group but concerned that the town selectmen were suspicious of her plan to inventory forest species because they fear public support might infringe their more or less secretive approach to lumbering the town forests. Lauren reported good progress on the Inuit Studies meeting, although Art Cirq has pulled out and Exxon-Mobil seems to have turned down our request for travel support for Alaskan groups. We finally got way from Harrington about 2:30 and had a smooth passage to Hare Harbor, arriving about 4. We immediately launched the Liberty and got a dive team and shore party working, without major discoveries, except that I tested an area of the site I had not paid much attention to, below the cookhouse and next to the spruce thicket along the southern edge of the site, finding 20-30cm deep deposit containing a huge amount of tile, charcoal, and some very large and thick rocks that look like slabs. Nails, earthenware, and some flakes of chert suggest more than just industrial production, including domestic activities and prehistoric materials. The chert did



Fig 1.18: Dead capelin in seaweed. Photo by W. Fitzhugh

not look like Groswater material. By 6:30 fog was rolling in and combined with dusk made it difficult to see in the black earth. Dinner was baked codfish and rice à la Vincent. We had another kitchen surprise: the emptying of a second tank of propane only 4-5 days after hooking that tank up. Too much oven baking and stove operations with all these divers aboard for much of the day? Or is something else going on?

Thursday 9 August – Hare Harbor A very quiet night and a bright sunny morning! We got up at 5:30 to take advantage of the fine weather for our second-to-last day at Hare Harbor. After a breakfast of Red River cereal we repaired to our respective sites and on the way were treated to a sighting of a small Grampus whale that made a circuit around the harbor before leaving, as if to check us out. The

reason more likely became obvious when we reached shore and found many capelin dead in the seaweed. This is the first time in several decades that I've seen capelin washed up on shore. This happens when they spawn and in the process many drive ashore, where people collect them, often when they have dried on the beach naturally. No wonder the gulls were having a field day when we got up. These capelin came in last night. It's a good sign of recovering fisheries and may be why the cod fishery here is improving.

On shore we worked at finishing up our existing squares with an eye to back-filling the site tomorrow. Richie and my squares at the south end of the midden (0N/16-18W) have few artifacts—a higher percentage of clay pipes than other squares—but lots of tiles which seem to have been laid down to cover muddy holes between the beach rocks. These squares are on the north edge of the route up from the cove. Christine and Christie worked on their new square that seems like it will mark the western edge of the midden. Cristina is working along the western edge of the big boulder and found a large mass of iron, probably a congealed bundle (bag) of nails. Will opened up 2S/8W where I dug a test pit yesterday and found a deep deposit filled with tiles, much charcoal, flint fire-starting flakes, and some glazed earthenware. While we were digging, Randy Cox' small yellow "pusher-prop" plane from Harrington buzzed us on its way east. It is a beautiful day to be in the air. Erik's team also had good finds—fragments of new marmite vessels, a bunch of lead shot with the spurs left from the molding process (dropping droplets of molten lead in water) still on, more samples of wood and lots of bird and fish bone (cod). By the end of the afternoon they had finished their pits and were preparing the strata diagrams. Will spent an hour photographing the more notable finds after lunch.

After another fine lunch of home-made soup and sandwiches, we returned to work. The hot fine morning

with a northern breeze gave way to strong SW winds and later on, some large rain squalls and a thunderstorm that passed east of us over Providence. We left the site at 6:30 just in time to miss a rain squall that gave us a beautiful rainbow. Erik and his team rushed to grab their pottery urn finds to recreate the picture we took of him and Frederic Simard a couple years ago with their marmite pot receiving a rainbow. The site work was dutiful but uninspiring. We finished the southern and western squares, which had little of note, showing that we had really reached the limits of the midden. I also excavated a couple test pits on the front of the bank to confirm that this was not a dump we needed to explore. Will expanded the Area 9 test pit I dug yesterday into a 2x2m square, 2S/8W. This square turned out to be up to 50-60cm deep, with many rocks, some possibly structural but most were rather 'suspended' within a charcoal-rich midden with many tiles and some ceramics. All appeared to be early earthenware, but one piece was Normandy stoneware. This site is only a few meters below the S1 cookhouse site. Tomorrow we will finish the remaining squares, draw profiles, and back-fill.

Sarai made a Mexican dinner for us, spending much of the afternoon in the galley. It was a great meal, which Will enhanced by mixing up some of his 'Old Dane' cocktail, with Gammel Dansk and Tang. Shades of last summer! The drink brought much mirth—as much a result of its unforgettable taste as its effect. Today we discovered that the reason we have been burning through so much propane is that when the pilot light is on the oven also stays lit on low. We have been keeping the pilot on this year continuously for the first time, thinking it used only a tiny bit of gas. But somehow we have managed to strip the controls and have done just the opposite. We will now need to find propane somewhere along the coast.

Friday 10 August – Hare Harbor Last full day at the site, and we got a good early start and were on-site by 7:45, with the divers going down an hour later. Fortunately the weather has remained good, even though the



Fig 1.19: Ally and Sarah Vatcher-Evans enjoying the weather.
Photo by W. Fitzhugh

morning began cloudy, with a suspicious south-easterly breeze—the first we've had, but it cleared off later in the morning. Most of the morning was spent finishing up final squares, and Christie and I drew a profile of the 24West line from 10N to 0N. There was not much to draw except rocks as there were no interesting soil levels—only turf, black earth, and sterile boundaries. Will, Christine, and I made vertical shots of all of the squares, unfortunately having to shoot them with south 'up' to keep our shadows from being in the pictures. About 10am Wilson's boat chugged into the harbor, tied up alongside the *Pits*, and Wilson, Christine, Ally, and Sarah came ashore. They wandered around the site for awhile and then went off to pick berries. We all convened on the boats for a big lunch with the best of Vincent's and Christine's efforts—sandwiches, beef stew, pizza, carrot salad and other delectables.

After lunch Sarah and Ally went ashore with some berry-picking equipment (containers) and blankets. Not sure how these were to be used, but later we saw them across the harbor lounging on them. The divers went off for their final underwater work and the shore crew hiked over to the east cove to check on the cache/burial structure we'd found last year. The structure consisted of a 5 foot long, 2 foot wide oval enclosure built up against the vertical side of a boulder, situated on a ridge about 30 feet above the water. There was no top on the four or five rocks making up the enclosure, and its inside was grown over with blackberry plants. Below this was about 10-15 cm of peat and below that sterile sandy soil. At the northeastern end of the feature we found a thin organic layer

between the peat and the sterile sand; this had the consistency of a layer of hide and may have been a covering or mat when the structure was in use. Lacking any artifacts or other signs of a burial, it seems likely to have been used as food cache.

Back at the site we finished up the excavation of 2S/8W which turned out to be quite productive, with more than fifty artifacts, including plain and glazed EW, a very fine (broken) whetstone, many nails, and many flakes of European flint that appear to be fire-making detritus. The large amount of tiles and charcoal suggest this is the remains of some industrial activity like those noted on the north side of the site. This area is a good bet for more excavation if we return in the future. I spent an hour checking over the square notes and adding some details, but there is not much to be said about a midden, lacking stratigraphy, paving stones, or features of any sort. Cristina found a large number of nails in a small area up against the west side of the big boulder, and a mass of congealed iron. One of the last finds to come from this year's excavations were bottom fragments of a stoneware jar that Richie found fit pieces from 10N/22W—a tall cylindrical milk jar with a wide mouth—similar to one Anja Herzog reassembled from pieces in the cookhouse years ago. The A8 midden excavation is now complete! (But I know that should we excavate the east side of the big boulder we would find many interesting things lost or stashed around this central feature of the site's geography!)

Realizing we would never be able to back-fill completely, we made a token effort of the three squares around the charcoal pit and called it a day, returning to the boats where a large dinner of halibut and codfish was being prepared by Vincent and Christine Vatcher (with this union of our two boats we now have four 'Christines' on hand: Leece, Garcia, Johnson, and Vatcher! – It's getting like the SI Dept of Anthro with its large raft of 'Bills' in the 70s.) Dinner for 16 on board nearly broke a *Pits* record (17, I believe) from the 1978 Torngat evacuation; but our dinner was a much more pleasant affair and ended about ten. Hopefully there will be no late night storm event like the other evening we were all together here and had to abandon Hare Harbor when a strong easterly threatened to drive us ashore and entangle Wilson's boat.



Fig 1.20: End-of-season pig pile on the *Pitsiulak* for dinner. Photo by W. Richard

Saturday, 11 August – Hare Harbor to Cumberland Well the evening was calm after all, and we were much relieved to find the dawn a continuation of yesterday's light easterly breeze. Shortly after 7am we were onshore, finishing up 4S/18W—the last artifacts to be catalogued from this season's work were a spike and two pieces of earthenware. Meanwhile the back-filling began, soon to be reinforced by Wilson and Christine, and lasted barely two hours—one of the shortest periods of this fairly unpleasant task at this site. Partly this was because we had Sarai's, Mathieu's, and Vincent's assistance (Erik and Marijo remained on board packing and processing the dive collections.) By 10 we had the site 'unpacked' and said 'goodbye'—whether we will be back remains an open question. The richness of the new Area 9 (2S/8W) would certainly repay excavation, and the underwater finds suggest that more work here would be rewarding. More work on land would perhaps add to what we know of the Basque occupation and the organization of the site; on the other hand, we are not finding much new material, and figuring out the industrial activities that produced all the tile and charcoal in Area 9 seems as obscure as in

the under the rock shelter.

Back aboard with all our artifact pails, dirty buckets, and dig gear, we stored gear and said goodbyes to the Wilson-Vatchers. Ally reminded me that she was thinking of coming to the Inuit Studies Conference this fall, perhaps we can find her a place to stay. Just before we parted company, Helen, Miles, Jake, and dog showed up to join the others for a gooseberry-picking excursion, supposedly at a spot that Cynthia Rowsell often frequents; if she hasn't been there already the interlopers may have to mend fences with her with a bottle of gooseberry jam! As we steamed out of Hare Harbor I was no longer so sure we wouldn't be back. There is still much to do here, and it's hard not to be attracted by the warm friendship we've had with many in Harrington. As we were leaving we wanted to return the two buckets Wilson had brought to shore to assist with back-filling. "No you keep them—as repayment for the shovel!" (Yesterday he offered to repair the broken handle of one of our ancient shovels, but just when he had finished refastening the blade it slipped overboard and sank to the bottom with a motion like a maple leaf in autumn.) We are certainly indebted to him as a result of his donation of some crucial compressor oil last week. Without that expensive commodity we would not have had a dive program at all!

Once underway, we found the weather calm, with only a light breeze from the southwest. We stopped briefly at La Tabatière to buy propane and a few other groceries, including some soft ice cream cones which were a nice treat. The dock is now completely rebuilt and is a beautiful modern facility. Only problem now is that the fish plant has been closed for three years since the Nfld company that owned it pulled out, and now there are no services except diesel oil. No water, and the harbor-master pointed out that we could not leave garbage and would have to carry it to town. The old ice plant is decrepit and half torn down, while the freezer is more modern and salvageable. All they need is a buyer, and supposedly there is a local person interested in using the facility for a smaller fish plant along the scale of the Harrington operation. After a couple hours schlepping stuff, with the assistance of the sister of Kay (the Harrington nurse) who drove me to the boat with our new propane tanks, we proceeded on through the Grand Rigoulette to Cumberland Harbor, which we reached about 6pm. Passing St. Augustine, I tried to reach Nick Shattler but had no luck either on his home phone or VHF channel 10. The evening was devoted to Will's birthday party, which in his honor was spaghetti spiced with his favorite olives. Vincent and Marijo made a fine chocolate birthday cake, which we spiced with a bit of rum. (Some of the crew had availed themselves of the liquor selection at the Tabatière store.) The Cumberland Sound anchorage was quiet all evening, and we saw no speedboats between St. Augustine and here—a good sign, considering that it's Saturday, that the bakeapple harvest is over. On the other hand, we did see some signs of mackerel.

Sunday, 12 August – Cumberland Harbor to Little Canso Island The night was completely still, and when we woke at 5:30 there was not a ripple on the water. A local fisherman dropped by to find out who we were and told us he had been catching a few mackerel. We had breakfast underway, and in just 45 minutes we anchored in a shallow sound at the northeastern end of Canso Island. Soon we were ashore at Little Canso setting up a grid to excavate the middle (House 2) of the three houses at this ca. 1700 Inuit winter village site. The site is covered with grass, cracker berries and other low growth which has produced a thick sod over beach sand. The Inuit chose this site for its protected harbors, with access across a tidal isthmus to Jacques Cartier Bay on the north side and the Gulf on the south. The narrow channel between Little Canso and Canso dries at low tide, and its flats have lots of clams in addition to providing an enclosed harbor available to kayaks and small boats except at low tide. The sandy soil was easy to excavate and to mound up for the house walls. The only oddity is that the house entrances all face west into the rising hill of LCI. Most Inuit sites orient with a view to the water. By noon we had opened up six 2x2 squares through the middle of the house and were finding Normandy stoneware, nails, and small numbers of seal bones. Work went quickly with the divers lending a hand. The soil was acidic but very dry and the nails were not as badly rusted as at Hare Harbor. Perry came ashore in the Liberty for a bit after he

determined the bakeapples were all gone by.

When we returned to the boat Vincent and Richie made sandwiches, soup, and salad, and periodically various local folks pulled up to find out who we were, and to chat. Aurelle Belvin and Gilberte Wellman arrived just as we returned and lured Erik and Christie out in the Liberty with stories of big schools of mackerel in the nearby tickle. Although they roared about trying their luck, they returned empty-handed. Later in the day the Belvins visited us at the site and grew curious about our finds. It turned out Aurelle is Inuit, and initially he was concerned we might be tampering with the graveyard on the northern side of Canso Island. He might actually be related to the people who lived here 300 years ago. The next arrival was Felix Belvin (they had no knowledge of Cleophas Belvin's *Forgotten Labrador*). Felix told us about a wreck in a cove across the bay and offered to take Erik and Mathieu there to dive and locate it precisely. They went off with high hopes but as with so many of these local stories, it failed to pan out. The vessel is supposed to be one of the early coastal supply steamers, an 'ancestral' *Nordik*. Apparently some years ago some people dived and found it (you are supposed to be able to see it at low tide)—this sounds like one of the wrecks Wilson Evans has mentioned to me. Later we met one of the people who had dived on it.

At the site, the weather turned cooler toward the end of the day and the sky grew angrier and more ominous. We had heard that a major storm would be upon us tomorrow, and we could believe it from the signs. Digging began to make more sense as we got deeper. Unfortunately the sleeping platform (like those at Hare Harbor) was not paved, making it difficult to define the top of this feature, but soon we found stone retainers and in its southern end, a whale bone bench retainer. Below this bench riser Richie and Vincent recovered the corner of an Inuit rectangular soapstone pot. Christie also found a bottom fragment of a different pot associated with a couple of large standing stones that seem like a hearth feature for a stone lamp. This piece has much thinner walls and almost has a 'Dorset' look about it; its thin side walls are cut down and rise only a few millimeters above the base, which has charred remains. Her square also contained the top of a stoppered Normandy stoneware vessel, of which we found more pieces elsewhere in the house. Other notable finds were a rectangular whetstone and small numbers of Basque roof tiles.



Fig 1.21: Mice babies on LCI. Photo by W. Richard

One of the most surprising events of the day was Vincent's discovery of a mouse nest as he excavated into the southeastern corner of 18S/6W, exposing six baby mice, still blind, huddled together in a small chamber in the soil. They were adorable as Vincent cupped them in his hand, nuzzling about looking for the mother's teats. Rich tawny brown fur, each one about an inch long. We transplanted them to a make-shift house near the entry of the house. Later, in the afternoon, the mother burst out of a tunnel in the original nest and ran across the excavation while we tried to catch her to reunite her with the kids. No success. She was off and gone. At the end of the day we put the very hungry babies back in their original home and covered it with sod, hoping the mother would return. Unfortunately

their prospects are not good, as the approaching storm and rain are going to find them unprotected. We will see the outcome soon enough.

We wrapped up around 6pm and returned to move the *Pitsiulak* to a more secure anchorage. We had heard that our little sound had a very soft bottom and we might drag anchor. Perry decided to try the sound between Shekatica and the mainland, but when we arrived and inspected the site and made a trial anchoring, it was as I remembered it from a few years ago—20 fathoms deep. When we put down our anchor people in the cot-

tages in the cove nearby called us on VHF to advise we reposition further east. Instead we decided to run down to the head of Mistanoque Bay, north of Shekatica, where the water was about 12 fathoms and was surrounded by high hills and spruce. We feel like we're in a lake in the middle of the woods! We secured all the gear topside in case the storm materialized and retired for supper. Erik had been cooking an excellent roast ham with pineapple sauce, mashed potatoes, and sauerkraut with apples—the smell drove us wild before it was finally ready. We had heard Nick Shattler would meet us at the site this afternoon, but he never showed up. After dinner I called his home and found him there, having spent the day up the river on a birthday party for his 13-year old daughter. Tomorrow he has to work at the restaurant and on a construction site, so likely we won't see him out here this year. I gave him a run-down of the progress and confirmed last year's belief that the site was ca. 1700 Inuit and probably a brief occupation.

Monday, 13 August—Mistanoque Bay After all this fine weather we've had, there had to be some pay-back, and today was the day! The best thing I can say is that it's almost over now. It's 9:30 and I'm sitting here watching a chain of crew-members perched on buckets in the pilothouse, one in front of the other, giving each other massages. Apparently there is a lot of energy still to expend, which has not been the case at this time of day for the previous few weeks when everyone was falling into bed and snoring by this time. The difference? Fourteen hours of cabin fever, relieved only by a brief shore excursion, a run of showers-in-a-bucket, and three fine meals: pancake breakfast by Will, lobster bisque and baked mackerel lunch by mackerel fisherman Erik, and pizza and salad supper by Vincent and Marijo. All in all, it has been quite fun and a break from the normal work routine. What was touted, though, as a scary storm has been instead a wet northeaster whose windy component has been neutered by our cozy anchorage up deep beneath the cliffs here at the head of Mistanoque Bay, where very little wind and no sea (so far) reach us. I snuck out before breakfast with some warm water to the roof, found the rain and brief blasts invigorating, and was soon followed (after I was finished) by a string of people fed up with the growing grime—even the women found the exposure of a roof-top shower invigorating, with the tundra-clad mountains and cascading spruce, birch, and aspen forest around on all sides. There followed a shore excursion for the beach-combers and for fisherman Erik, finally a successful attack on the mackerel, a lunch using the lobsters Erik garnered from Belvin yesterday, and an afternoon of naps and baking projects. I spent most of the day getting my Hare Harbour square notes written up. All the time curtains of mist-rain marched across the space between the *Pits* and the head of the bay from the northeast. There is no sign of a southerly windstorm as originally reported on the weather channel. While all this 'nothing' was going on, we occasionally thought of the poor blind mice on Little Canso Island left on their own with no proper mouse-home and perhaps not even their distraught mother. Our best hope is the miracle that she might be able to find them a second home—a long shot indeed.

Aurette Belvin had told us about a site in Mistanoque Bay where people used to dig for artifacts. The place is located on a low point of land on the west side of the bay about halfway down from the entrance. We passed this location on the way out of the bay, and indeed it looked like an interesting place—a shallow bar from the point on the north side to the south side creates a partially land-locked embayment, and the point appears to have good prospects for a settlement site. In addition to finding old plates and other things there are supposed to be lots of pits in the ground where people have been digging. This seems unlikely; probably the pits are caches or something similar. The area looks interesting, and we should take a look at it sometime.

Tuesday, 14 August – Mistanoque to Canso Sound Strong NE winds continued all night, and in the morning the skies remained grey and threatening, but the barometer had risen a point, and by the time we had breakfast conditions improved, so we decided to return to Canso and try to finish the LC Is. -1 excavation. Time is beginning to run out, and we have two more jobs to do, the Bilodeau harbor underwater survey, and if time permits investigate the waters off the Hart Chalet site near the mouth of the Brador River.

The passage out of Mistanoque Bay was smooth and we anchored in the same place as the other day.

There were many breakers on the offshore islands and the wind remained a brisk 20-25 knots. We found enough floater jackets for everyone and went ashore, setting up the haul-off near the site. Excavations proceeded well, with many new finds: a large dump of midden bones containing seal and caribou, more stoneware, two sheets of copper and a rolled sheet of lead (perhaps an impromptu jigger), nails, and a boat hook. The weather was windy, but pleasant for digging. We returned for lunch at 1:30 when Erik began complaining that his stomach hurt and he was losing efficiency! Richie made a lunch of baked beans and brown bread, and by the time we finished, the beans had settled in and I was not sure we'd be able to get the team organized for another foray.

We did manage to get off again and found the wind a bit abated. Perry had planned to go berry-picking, but after we left the breeze picked up and he decided to stay aboard. We were lucky that the boat anchorage on the north side of the site was fairly calm, protected from the east wind, although it was getting some storm surge. Despite short periods of light rain we were able to work almost until dark, at about 7pm, and during that time expanded the excavation to the limits we need for interpretation. Christie and Christine dug a 60cm trench through the back (east) wall to figure out the rear margin of the house. They found a sequence of thin alternating



Fig 1.22: The whole crew at Little Canso Island. Photo by W. Richard

peat and sand lenses representing the geological build-up, before occupation, of the dune-like structure the site has been constructed in. The excavation of the original house pit cut through these bands, and inside (to the west) a dark peaty layer below the upper leached grey sand probably is the remains of the house's roof. A few centimeters below that, a second peaty lens is the remains of the sleeping platform. Christie and Christine made a detailed profile and later extended it to the length of the 20S line. Meanwhile Erik and Christina and Sarai opened two 1x2m units to the north of their previous units, exploring the northern limit of the dwelling. The rest of us opened units down the length and on either side

of the entrance tunnel. Marijo uncovered the cold trap and lintel construction, Will and I the central part of the tunnel (where Will found a small cooking alcove on the south side of the tunnel wall which produced layered charcoal deposits 20cm thick on the tunnel floor, and Richie and Vincent excavated the outer part of the entry. The 2x2 unit south of the entry area (20S/8W) was found to resemble the SW corner of the house (20S/6W) and raised the question as to whether these areas are inside or outside of the structure, as no clear rock wall was evident. 20S/8W contained a large amount of animal bone along its west wall, comprising at least seal and caribou. Artifacts recovered during the afternoon included a small stoneware cup bottom, numerous other stoneware fragments, thin 'goblet' glass, more pieces of the small soapstone pot, a corner piece of what may be a soapstone lamp, an iron hook, an iron harpoon foreshaft (?), iron knife blade fragments, a whetstone, curled sheets of copper, a rolled cylinder of lead that may have been a jigger or a net-line weight, a thick piece of earthenware, sled runner fragments (in the entrance tunnel), an eroded bone or ivory bead, as well as nails and tiles. Many of these materials also were found at Hare Harbor, with the exception of the copper materials, which were completely absent from the latter site. Considering the late start and limited hours on-site, and the marginal weather, it was a

very good day's work!

We returned to the boat just before dark and decided to remain in our present anchorage, which is handy to the Little Canso site, because the wind is had begun dropping off. After a dinner of shepherd's pie everyone retired, anticipating an early morning rise in hopes of finishing the site work by midday so we can motor down to the Bilodeau Islands.

Wednesday, August 15 – Little Canso Sound The forecast was accurate and the wind died down gradually during the night, but rose again to a brisk breeze by lunch-time. We rose at 6:00 (more oat-meal!) to a fairly gloomy sky, but at least there was no

rain in sight and our anchor had kept us in place—a concern because of the shoal only about 100 meters off the stern. The plan was to finish the site work by noon and be off to Old Fort, however, this did not happen. Perry suspected as much, but he had put the Liberty aboard just in case. Ashore we finished excavating the entry passage and the midden square to the south. The hang-up was all the recording. Christine and Christie had got a 20S profile done yesterday, but we needed a N-S profile at 6W through the middle of the dwelling. Then there was all the mapping of rocks. In the end we had three mapping teams working while the rest of us cleaned up the excavation for photos. The excavation produced few artifacts today—the notable ones being a very nice sled runner from 20S/10W (unfortunately broken during the sod-cutting operation), and a large piece of whale bone from 18S/10 west of the cooking alcove, a few possible knife blades and spear or arrow points, and a single flake of Ramah chert (probably from a local Dorset site). Surprisingly few artifacts came from the entrance tunnel, which had only about one centimeter of charcoal-peaty deposit directly on the pavement. However above this was 10-25 cms of alternating charcoal-rich and clean sand lenses, the charcoal coming from the cooking alcove off the south side of the passage. A second hearth was located inside the house near its south end, seen as a jumble of rocks, some of which had charred seal oil blubber stains. At the bottom of the rock-pile was a centimeter of charcoal. The two vertical slabs standing in the center of the house seem to have been a fire-place made



Fig 1.23: Whale bone sled runner. Photo by W. Richard



Fig 1.24: Reconstructed lintel of House 2. Photo by W. Richard

by someone using the abandoned dwelling for a temporary bivouac. These slabs were perched right on the floor and had loose charcoal beneath them. The most remarkable feature of the dwelling was the incredible attention that had been given to constructing the entry passage pavement. The paving here was remarkable, with carefully-matched stone contours, a constant level, and well-build retaining walls. The lintel and cold trap area was less easy to understand because its key vertical and lintel stones had been rearranged and were not in their original positions. I decided to 'rebuild' this feature and to keep open (rather than back-fill)

the paved area of the house so that local people—many of whom have Inuit ancestry but know little about Inuit culture from early times—could appreciate the ingenuity of an Inuit winter dwelling and have a better idea about the early Inuit occupation of the Lower North Shore. So after we finished the recording and photographing the site, including each of the squares from top-down, we replaced the dirt in the sleeping beach and midden areas, leaving the central room pavement and entry passage open to view. Unfortunately we did not have time to excavate the outlying squares around the house and entry. Since our squares fell about 50-100 cm inside the walls, this made it difficult to determine the exact location of the walls and the shape of the house, and whether it had two or three sleeping platforms. Nevertheless, given that we had only two-and-a-half days to excavate this site, I feel we had great success, recovering its architecture, about 150 artifacts, and two buckets of bones that will provide information on economy. Erik also collected soil samples from several locations for insect analysis. Our final assessment is similar to last year's preliminary view: that this site was a relatively short occupation, ca. 1700, by Inuit who had a good supply of European material but who lived more independently from Europeans than the Hare Harbor Inuit, who shared similar European materials (stoneware, roof tiles, nails, iron knives and points) but lacked such items as glass beads, clay pipes, and large quantities of iron and domestic ceramics.

Finally about 3pm we finished back-filling and reconstructing the site and packed up and returned to the boat. By this time it was too late for a run to the Bilodeau islands, so we sat out on deck enjoying beer and nuts and told stories while Mathieu did some detailed descriptions of a piece of timber he had brought up from the Hare Harbor site. Will joined us, but almost lost his precious notebook when it fell out of his pocket into the water. Fortunately Erik was over the side into the speedboat in a flash and recovered it before it sank or drifted away. Will promptly interleaved its pages with toilet paper and was able to dry it out. Dinner this time was rice and chicken curry—A Vincent concoction, and baked cookies by Marijo. For a couple hours after, the crew played music on the computer and jived on pop culture, enhanced by some rum and lemon toddies. It's calm and we expect a quiet night and another early day transiting to Old Fort. Our potable fresh water is gone as well as 2/3 of our ship's water tanks, which we use for cooking and washing.

Thursday 16 August—Jacques Cartier Bay to Brador The night was clear with many stars, and the first we have experienced as 'cold.' But when we got up at 5:15 we found clouds had moved in and the wind was low but still in the SW, as predicted. The report called for increasing wind from the same direction throughout the day and becoming stronger from the SE tomorrow, so we decided we should try to get to Brador by night-fall if possible. We had a ten mile stretch of exposed coast from Mistanoque Island to the Bilodeau Islands. Some of these bays and coves looked promising for sites, particularly one called Sandy Bay, with a nice sequence of emerged terraces and beaches. We reached 'Bilodeau' Harbor about 7:30, had a quick breakfast and went ashore to check with Dwight Bilodeau about how to proceed with the underwater survey. He was home and had been expecting us yesterday evening, having got our telephone message while he was at the summer camp his brother runs at their salmon fishing camp up the river. This camp has been held for many years and has been very successful in attracting clients from Canada and the US. They charge \$3500 for two weeks and hold it at their salmon-fishing camp up the river where they conduct a variety of activities, including salmon fishing. This year they have been catching 12-15 pound salmon, the 'second-run' fish. Dwight and his wife help out, cooking and running activities. Their family is a large one, 11 or 12, all but one, boys. Several of the brothers, whom we later met in town, have just



Fig 1.25: Dwight displaying part of his museum. Photo by W. Richard

acquired a new fishing boat, only a couple of months out of the Jackson shipyard in Jackson's Arm, Nfld., and are doing very well with the fishing. Another brother recently caught 10,000 pounds of mackerel in a shore-fast trap in a single day. The mackerel run has been very strong this year. Dwight followed his grandfather (and father?) in the general store business and until this past spring ran the store in Old Fort. After many complications with expanding his store he decided to retire and now spends all his time working on projects—following his interest in local history, promoting good-will projects, and other activities. Over the years he has gathered many old and unusual objects which he hopes will eventually become the core of a local museum.

After a short conversation in Dwight's cottage we returned to the boat and the divers suited up for an exploratory dive on the wreck in the cove south of Bilodeau Harbor. This wreck has been known for many years, and when he was younger Dwight used to dive on it and found pieces of pottery and glass on the bottom. More recently he has had the wreck officially declared and registered to protect it from damage by scavengers and collectors, but until now there has been no professional assessment of its identity or condition. His intercession resulted in the Quebec Ministry of Culture offering some limited support to undertake a preliminary assessment by Erik Phaneuf and our dive team and report on finds.

We returned and picked up Dwight, who brought us to a location a few meters south of a submerged ledge that turned out to be directly over the wreck, which was in only about 4-5m of water. Erik, Vincent, Marijo, Sarai, and Christie dove on the site for a bit more than an hour, splitting into teams. Christie and Erik surveyed the wreck generally, looking for artifacts that might date it while others gathered metrics. The vessel, a sailing ship, 40m long and 10m wide, had split open from stem to stern revealing much of its structure, with ribs sticking up and interior exposed (the upper decks were missing). Much of the copper sheeting on the bottom was still in place, and many copper or brass fastening rod (trunnels) were standing free, still in place in parts of



Fig 1.26: Divers off to explore wrecks at Bilodeau Island. Photo by R. Roy

the timbers. Very few artifacts were noted, but iron-rich ballast was abundant. A beer bottle neck manufactured around 1810 provided a tentative date in the first quarter of the 18th century. 100 m to the east a pile of ballast not associated with the wreck was composed of slatey rock. Erick got excellent photos and video. Dwight was disappointed the wreck was not earlier, but at least now there is a basis for further investigations about a period not

well-known in maritime history in this part of the world.

After the dive we rejoined the rest of our team, who had been exploring the island and was hanging out in Dwight's cottage. Dwight pulled out some home-made peach and strawberry wine and beer and we had a nice discussion about the wreck and historic materials generally in the Old Fort region. He has not yet been able to discover the location of "Jacques Cartier's cross" – the one he thought has been filled with lead – but had not quit looking. Since we had run out of time for more surveys and Dwight needed to return to his camp support work, we packed up and motored in to Old Fort, towing his speedboat in tandem with ours. En route we passed many locations that look like excellent prehistoric site locations, including a site that Dwight says has a Basque tiles. Dwight would be an excellent guide for an archaeological survey of this region as he already knows many of the likely habitation places.

In Old Fort we replenished our nearly empty water tanks, got a few groceries, and the girls had a chance to take a shower at Dwight's house. The fishing boat pier where we were tied up was putrid with rotting herring that get churned up every time a boat arrives or departs, but the gulls and gannets found this a great opportunity for squabbles over food in any form. Since the weather was stable we decided to leave for Brador in order not to miss a chance if the wind rises tomorrow.

This time Perry took the eastern passage out, marked primarily by two ranges. In the process we discovered our radar had gone on the blink. Two hours later, after bumpy ride into eastern wind, we arrived at the Brador pier just at dark. I called Florence Hart to let her know we were around but found her answer service only. The eastern breeze is a good one for the Brador pier and we had a nice quiet night tied up at a 'no berthing' part of the small pier, which was full of small boats occupying all the other spaces. All the while we were bouncing along the coast, Sarai, Mathieu, and Vincent were deep in discussions consolidating their notes on the Bilodeau wreck and drawing sketches and plans, despite the rough ride.

Friday, 17 August – Brador Our premonition about rude awakenings proved correct and our 'sleep-in' morning was rudely interrupted by a cry of "Hello there! You need to move your boat right away! I have a fisherman coming in who needs the winch." A team of scantily-clad, half-asleep characters materialized quickly and we moved around the pier to slots opened by the departure of early morning fishers. There followed a chaotic few hours when the pier got very active with fish landings, icing herring, mackerel, and cod into large bins for shipment to the processing plant by the ferry pier in Blanc Sablon. From there it goes either through Newfoundland to Boston or via the *Nordik* to the St. Lawrence valley urban centers. Most of the fishermen here are old-timers running small skiffs, although a few large boats are present; but these don't seem as active compared to the skiffs. Everyone here knows Clifford Hart and Florence, and they say, "He's in a bad way now, in the hospital." I tried Florence again, but without luck. One of the amusing scenes of the morning



Fig 1.27: Old hands on Brador pier. Photo by R. Roy

involved six codfish Erik acquired from one of the fishing boats. They were medium-sized, and he decided to fillet them. This turned into a farcical fish-cutting round-robin with everyone who had never filleted a fish getting a chance to do so, while the Brador old hands chuckled away as the codfish literally whistled through their practiced hands. The results looked quite different between the two groups—our ragged products were more like chopped chowder meat than filets. Especially humorous was trying to secure the cheeks and tongues from these small fish.

Christie, Erik, and I then took the speedboat over to the coves south of the Brador River, doing a bit of scouting for the underwater survey we wanted to do there. We found the Hart cabin and visited with the Inuit houses there, pleased to find them intact and the cabin in good shape, with a number of improvements in furnishings—and no evidence of black bear marauders having ransacked the 'chalet.' I continue to be amazed at the archaeological potential of this site, with its many prehistoric components in the heavily-forested areas around the house. Hopefully next year we can make a real excavation here.

Later in the day we returned with two dive teams to do some underwater surveys for possible wrecks or ballast. Mathieu and Marijo were in the first team and surveyed the inner harbor, and Vincent and Sarai did the larger and deeper, western harbor, while Christie, Erik and I operated the boat. Erik had scavenged some plywood pieces which he cut into hand-held diving planes which would enable our divers to move up or down in

the water, keeping the bottom in sight. The eastern cove was 10-16 feet deep, and the western up to 25-30. Both had shallow northern shores and also had some nasty shoals. I found these 'harbors' were not really harbors at all, except for prehistoric boats, and my hopes that we might find some wrecks or underwater finds to augment a land excavation project at the Hart Châlet site did not materialize. In the end these coves are probably too open to have been effective harbors. This view is echoed by the Brador fishermen we met on the pier, who say the best local harbor is Basin Harbor on nearby Isle du Bassin. We'll look in this direction tomorrow. During the day I made several phone calls to my office about the Abraham Ruben catalog and checked in with Lynne. The local fishermen here are much more interested in our search for wrecks than our other archaeological work. Not surprising. They have a good catalogue of wrecks, but they are all from the past century. The harbor-master here recalls René Levesque's summers here and the big excavation he did at the Courtemanche site.



Fig 1.28: Batman and Super(Wo)man preparing to surf-vey. Photo by W. Richard

Saturday 18 August – Brador Today brought more easterly weather, but with moderate wind, so after a pancake breakfast we decided to explore Basin and Frigate harbors on Isle du Bassin. I took the land team over first so they could wander around the island and do some surveying while the divers cased the underwater scene. Erik and Vincent went down first in Basin Harbor and almost immediately reported 19th C. ceramics on the bottom between the two headlands marking the harbor entrance. They also found a few tiles, a pinniped or dolphin skeleton, and small ballast piles. Nothing earlier however. This material seems like trash dumped over the side of ships anchored here. The second team dived on the site of a 1921 ship-wreck we were told about by a fisherman, located at the northern end of 'wharf' island, the island at the east side of the harbor that has a 'public wharf' marked on the chart (There is no wharf here today, but its location is seen by a pile of cribbing rocks on shore.) They found the wreck easily with wood planks on the bottom and near shore in about 10 feet of water, the engine and propeller shaft. We never had a chance to do a bottom survey of Frigate Harbor. The land survey turned up some 19/20th C. material and many old house foundations. The harbor area is filled with old fishing shed and camps, but the ground here and elsewhere on the island is covered with vegetation and has few exposures.

We returned about 1pm to find that Florence Hart had come to the boat earlier in the morning. Perry visited with her and had found a way to get a van for us from the rental people, through the local taxi driver, who remembered us from last year. When he returned with the van we paid her a visit and arranged to meet her at the hospital, where Clifford is living permanently now, with advanced alzheimer's—as Florence is no longer able to care for him at home. However, she spends late afternoon and evenings with him, tending to as many needs as possible. Christie, Will, Perry, and I joined them at 7pm and had a nice visit, although it's not clear how much—if anything—he comprehended. She spent much time speaking to him about the old days, our visits, the music he loved to play, and memories of working with René Levesque, and occasionally, in response to direct simple questions, he would nod or say 'no'. We left after an hour and joined the rest of our group at the Pizza Delight restaurant next door where we sampled a wide variety of their menu, passing food around. The owner, a friendly lady who remembered us from last year and was more than happy giving me the \$305 dinner bill,

told me her daughter had gone to college in Philadelphia and she had visited there several times, but never got down to Washington. Afterwards the team gathered briefly at the Motel 138 across the street and said goodbyes to the Quebec team whom we were leaving behind early tomorrow. Originally we had planned to join them on a road trip to Red Bay to see the Parks Canada and Newfoundland Basque museums and sites. But the weather reports sounded OK for crossing the Straits, and we needed to take advantage of the decent weather. Hugs and best wishes all around. It is always sad to see a group split up after weeks of working and living together, with our especially close arrangements on the *Pits*—dancing around each other for food, for finding seating perches, trading off cooking and cleaning details, and sleeping literally cheek-by-jowl. All of this without any complaints or acrimony, and in fact lots of good cheer and comraderie. The Quebec group was really a fine bunch, and very professional and inspired by their work. Their notes and reports have been very detailed and will make excellent material for the final report Erik will prepare. After goodbyes Erik drove us back to the Brador pier and took charge of the van for their Red Bay trip tomorrow. They leave the day after, Monday, strapping their weight belts on under their jackets to reduce their excess baggage costs! For those of us remaining on board the *Pits* seemed quiet and empty.

Sunday 19 August – Brador to Quirpon The weather was the same—a light SE/E breeze—when we rose at 4 and got underway at 4:30. The Newfoundland shore could be seen in the distance, but to the north were scattered fog banks and bleak skies. Already a sea swell was felt coming from the northern end of the Straits. Five hours later we were at Cape Norman, having had an OK crossing, passing only one large ship heading south, and encountering only a modest headwind. However, upon rounding the cape the breeze stiffened and swells from the ocean increased to 2 or 3 meters. To avoid the rough water we passed south of Great Sacred Island close to the stern section of the shipwreck that has been beaten up above the tideline; the forward section must be down in the water nearby. Docking at Quirpon, we found Boyce away from his house, but Will arranged for us to be picked up by someone from the Norseman Restaurant. Shortly, Gina Noordhof showed up and loaned us her car, and all except Perry piled in for a visit to the L'Anse aux Meadows site and museum. By that time it had started to rain and we got pretty wet touring the site, finding only a couple of re-enactors still on duty at 5:30. They have much more Norse stuff in the houses now, and the museum has had a total re-make. Last year when we visited it seemed thread-bare, with little to represent the LAM site. Now they have new materials and a new movie that provide a more complete story, especially emphasizing the wider Viking world and aboriginal context. One can quibble over the claims that the site was burned by the Norse before they left (no evidence for that!) and for not including some of Helge Ingstad's verbatim interview, but all in all the renovation for the 50th anniversary of the site has been successful. I only hope Parks Canada manages to retain knowledgeable interpreters in the face of the cuts they face in the Harper budget.

After the tour we had a great dinner at the Norseman, served by Gina and cooked by Adrian, and caught up with them. Their business has been down a bit this year, like LAM, due to a reduction of Americans and Canadians travel, and new Canadian and American marketing that promotes less expensive vacations closer to US and Canadian population centers. Jamie dropped a car off for us at the restaurant and we had a brief visit with Boyce on the way back to the boat. They have had a great summer here, with many days of warm weather, lots of big codfish (“more and bigger than we’ve seen for years,” Boyce said). A few fishermen are doing well with the fish, gill-netting, and there will be a recreational fishery for nine days starting at the end of August (five codfish per person per day). Also at the pier in Quirpon was the *Lady Margaret*, a 35-foot motor boat a fellow from Clarendon purchased in Hamilton, Ontario. They have been underway on sporadic legs most of the summer, bringing her to her new home.

Monday 20 August—Quirpon to St. Anthony

With Newfoundland time sunrise was much later, about 6:30. We awoke at 6 and found the wind light from the west, with forecast of increasing to 40k by mid-day—not a good prognosis for a trip down the coast. Nevertheless, we proceeded out, only a short time after *Lady Margaret*, and once clear of the Quirpon tickle hit patches of fog and high swells, but little wind. Over the next couple of hours we passed *Lady Margaret* and let our speedboat out to increase speed. But by the time we reached St. Anthony about 8am the wind was coming ahead of us and we decided to pull into the harbor for the day. Tomorrow was forecast to be a fine day with light wind. Better not to try and fight our way south only to get stuck in Conche. Entering the harbor we immediately felt the heat of the sun and the wind died out. The harbor was full of fishermen—there must have been fifty boats lining the commercial piers on the north side and the town facilities on the south side, around the Coast

Guard pier. We found a berth, the last one open (because it was too shallow for other boats), and Christie began a bacon and eggs breakfast. No sooner than we had set to our food than *Lady Margaret* pulled alongside, making the same decision about the day. Our crew then went off to explore the town and climb lighthouse hill, while I wrote notes and Perry snoozed. At 12:30 we rendezvoused at the Grenfell premises, checked out their craft store and then had lunch at the Grenfell Hospital cafeteria—something less than a culinary delight. We spent the afternoon cleaning artifacts and bones, and tidying up our gear. Dinner was cheese-burgers prepared by Richie and Christine. Meanwhile Perry and a local technician tried to psyche out why our radar has not been working. Turns out the magnetron has not been sending signals from the mast to the radar screen. By this time of day a beautiful sunset was occurring and the girls went to observe it from the hill.

Tuesday 21 August –St. Anthony to Lushes Bight I had suggested departing from St. Anthony about 6am, giving time for our tied-on neighbors to leave the harbor, but Perry rose shortly after 4, rousing up *Lady Margaret* in the process. However as we warped off the pier using a spring line we found ourselves fast in the mud, unable to move at all. It seems that the water depths decrease away from the pier, and it happened that it was dead low tide. Wave and prop wash had kept silt from accumulating at the pier and deposited it a few meters out. After an hour the tide rose enough for us to pull out, and we headed out the harbor into a nice calm sunrise. Now that we are back on Newfie time this happens at 6am, not 4:30 as in Quebec.

We had barely got underway before we realized that the radar I had spent \$250 on last night had come a cropper, and we were once again without our primary radar. Bill Murrin, a technician in St. Anthony, had given us a second-hand magnetron, believing it would work in our JRC radar. It seemed to do the trick last night, but not this morning. With patches of fog in our path we relied on our old-faithful ancient radar from the Tunuyak. It turned out that the weather reports were accurate in describing the winds as light and variable, and this is how we found them. For most of the trip the sea was glassy calm, with big dimples in the surface tension refracting light as though the sea of pocked with puddles of oil. Will hung out on the bow shooting pictures of all the



Fig 1.29: Artifact cleaning at St. Anthony's pit-stop. Photo by W. Richard

puffins he could find, taking nearly 200 shots. Small dovekie-like birds, and few fulmars, and some gulls were the only creatures we saw, and no whales or porpoises. The sun was warm enough to lounge on the back deck, snoozing or reading. A nice final day on the boat, with the smell of a ham ready in the oven as we pulled into the Lushes Bight pier. Melvin and Bradley were there to help us tie up. Louise and Jane were off for her cancer treatments in Grand Falls and would not be back until Thursday, so we would have the run of the house for a couple days to get the boat gear off-loaded, cleaned and stored away. While we feasted on ham, mashed potatoes, and carrot salad, big thunderheads piled up to the northwest, but nothing came our way, and the night was calm and clear. Christie and Christine jumped ship and went off to Perry's mother's house for lodging, while Will, Richie, and I remained on board. For all the time it took us to travel from St. Anthony (12 hours) it turns out that Jim Colbourne and Dennis had made a run up to the Grey Islands for bakeapples a week ago—but the 70-odd miles does not take much time in a fast speedboat. They did not find many berries, but rather bumpy boating in the easterly winds that were on at the time.

Wednesday 22 August – Lushes Bight At 6am the Lushes Bight dock came alive with a few fishermen loading ice into their boats and going off to catch. By 6:30 it calmed down enough for me to get back to sleep for an hour before moving to Perry's for coffee. We spent the morning unpacking the boat and bringing artifacts and gear ashore. The weather was gorgeous all day, and by the afternoon we got started on processing and photographing the collections. At least three full pick-up truck loads of gear came up from the dock, and by the time it was over, the *Pits* was sounding pretty empty and hollow inside. I saw (and killed!) one large ant on the deck outside in the morning and I hope that was the LAST ANT, who perhaps had hid out below decks (maybe seasick?) until arriving home and was trying to find a way off the boat, to start a new life. At any rate, this was only the second ant we have seen on board this summer; maybe it was the same one that appeared briefly early in the trip. We followed the usual method in dealing with the collections. Christie checked and inventoried everything to find mistakes and missing or duplicated records; Richie and Christine cleaned artifacts; I made record photos of each square; and Will made detailed photos of special materials. In the evening Perry cooked a barbecue dinner with chicken, steak, and the remaining ham from last night. I called Robert Linfield and confirmed that we would return the compressor, tanks, and weight belts in Gander by noon tomorrow. Perry said he would drive them over. I also checked in with Lynne and Lauren and found everything on even keels at home and work. Will and I made an early return to the boat after the television series and reportage on Prince Harry's indiscretions failed to keep us tuned in.

Thursday, 23 August – Lushes Bight The fishermen and their bins of ice were at it again early this morning, but we were up early because Perry and Will took the 7:30 ferry and drove to Gander to deliver the compressor gear to Robert Linfield. The drop-off was quick and the return uneventful, except for the wreck of a small car that hit a moose a few minutes before they passed. They arrived on the 12:30 ferry at the same time as Louise and Jane, who had driven from Grand Falls to the nursing center in Springdale where Louise had to check in for more of her treatments. I spent most of the morning getting back into email contact after struggling, with Christie's help to dump large files that were clogging my account. There was (so far) nothing of stupendous importance other than problems with the Anthropology Dept conservators about letting our Greenland kayak get installed into the Ocean Hall without being in a case. Meanwhile, Christie, Christine, and Richie, washed down the *Pits*, floor to ceiling, returning her nearly to her sparkling pre-expedition condition—leaving only a few recalcitrant bloody mosquito kill-sites on the walls. After lunch we attacked the remains of the artifacts—the final half of the Hare Harbor collections. This work went quickly, and by mid-afternoon we were packing the buckets and one large plastic crate for the underwater collections, sorting out the scuba gear, and loading up the truck with the timber frames used to prop up the *Pits* once she's on land. During the evening Dennis and Sheila started their outdoor campfire and we cooked a few sausages and capelin. Jim and Prudi Colbourne dropped by with their dog, Bailey, but he did not take a shine to the crackling fire and hid out in the shadows. Nothing could be done to coax Perry's cat to come close and be part of the party, either. Around the fire there was a lot of talk

about the proper way to make a pudding, and how it differs from a dumpling. These are things Newfoundlanders know but outsiders are ignorant of.

Friday, 24 August – Lushes Bight Today the heavens finally dumped on us and it rained off and on most of the day, but also offered patches of blue sky and sunlight. Jane, who is living in Beaumont now, drove the ship's timber trusses over to Triton on the early ferry while the rest of us took the *Pits* out on her last junket of the year, through Long Island Tickle to the Triton 'marine center,' which is only that nominally now as Jerry Jones, the owner, has been trying to find a way to reduce his losses on the boat storage and hauling side of the ledger, so he was not draining support from the manufacture of hydraulic diamond drill rigs he is selling to mineral exploration groups that are probing the Canadian North and other regions. For two years he has threatened to discontinue handling boats, which would force fishermen to take their boats to more distant centers for storage and inspections. When I called him yesterday to see whether he would accept the *Pits* for the winter, he indicated he had made some progress negotiating with them and the government. The bottom line is that prices will go up for hauling at least the big boats that take most time and create wear and tear on the lift. The fishermen on their side are hoping to convince the government for a subsidy, but this seems unlikely. At least for us it looks like we have a winter home for another year or so.

We arrived at Triton about 10 and found Jane waiting with the truck. Dennis, the rig operator got us up and parked quickly and by 11 the *Pits* was nominally secured, needing only a visit next week for Perry to secure the electronic gear and winterize the engines. At this point Perry and the rest of the team took the speedboat back home through the Pilley's Island channels, and Will and I took the artifacts to Budgell's Sports and arranged to have them shipped to Fred Simard in Quebec: one large crate full of underwater materials, a tube for the killek sticks, and four 5-gal. buckets for Hare Harbor and Little Canso Island finds. With a few minutes to spare we grabbed some fish and chips from Fudge's Restaurant and got to the Long Island ferry in time for the 1:30 run. We spent the rest of the afternoon on notes, and dinner preps, for which Christie and Christine made a blueberry dessert to go with an immense feed of turkey, salt beef, dumplings, carrots, cabbage, potatoes, and many other boiled dinner delicacies. The feast filled Perry's and Louise's kitchen and living room. Present were Nan, Sheila and Dennis, Prudi and Jim, and our crowd. A really nice evening. We got some pictures of the event. Louise was feeling a bit out-of-sorts from her medication and so everyone pitched in while she took on Perry's usual role as 'watcher and commenter' on the galley cooking operations from his perch in the captain's chair. With no boat as hotel, Will, Richie and I went to Jim and Prudi's garage loft for the night. Rain still off and on into the evening.

Saturday, 25 August – Lushes Bight to Deer Lake Will, Richie and I slept in Jim Colbourne's garage loft 'bunkhouse' last night, and had a big bacon and eggs breakfast he prepared for us this morning. His part-huskie dog, Bailey, was a great source of amusement in the way he obtains treats by whining and carrying on in front of the 'treat closet'. They indulge him completely! This morning, as usual, Bailey was let out and trotted over to the neighbor dog's house and brought him home to Jim's, each positioned at the front and back doors, synchronously scratching and demanding treats, which they got. Neighbor dog then promptly returned to his own house. After interesting discussions with Jim about the state of affairs in Labrador (and Labrador City, his and Prudi's home) including the new mines opening up, some owned essentially by the Chinese, and the new rail line (two already exist, one private and one public, and a third, public, is approved) we went to Perry's to pack our gear into and onto Will's Volvo. All was ready for the 11:00 ferry, on which Jim and Dennis and Sheila were also traveling to get to a blueberry-picking location ("where the berries just fall off into your hand"). Lots of heart-felt goodbyes to Perry, Louise, and grandma Nan. Louise was feeling better this morning-more distance from her chemo treatments. We all have our fingers crossed for her.

After the Long Island ferry we made a detour north to the Triton 'marine center' otherwise known now as the Triton Diamond Drill, where Will wanted to take a photo of the drill rigs outside the shop. While in the yard we met a security guard who was about to lock the gate when we entered, and getting into a discussion with him I discovered he as Jerry Jones' (the owner) father. Will had been thinking of writing a story about the

drilling outfit, noting it as an example of successful high-tech business opportunities in outport Newfoundland villages. When I mentioned that Will was thinking of doing a story, Jones noted that Jerry had never allowed any publicity about his operation, which now includes many contracts with northern exploration companies in addition designing a pack-packed drilling outfit needed for parts of Colombia where drug-traffickers do not permit aircraft delivery! I assured him Will would be in touch about the idea for approval. Jerry was the person who installed the hydraulic steering and winch systems on the *Pits* twenty years ago when his work was exclusively focused on fishing boats. Now he is a multi-millionaire. He told me when I called him last week that he had found more Maritime Archaic tools where the celt he showed me last year came from. He had shown that piece to Jerry Penny at the Newfoundland Museum, Jerry confirmed my identification and age of the items. I told him we'd check out his site when we return next summer.

The drive to Deer Lake was beautiful, sunny and bright with flat-bottomed clouds on a NW wind. We had lunch at the Deer Lake Irving station, ice cream cones at the Insectarium (they had their best visitorship season of all this summer), and drove on to Jamie Meyers Mineral shop in Pasadena to see what he had to offer in carvings and minerals. He was not there, but we got a good tour from a young assistant. He had only a few carvings—probably due to the lateness of the tourist season, with much stock sold out. Returning to Deer Lake we picked up groceries and arrived at Greg Wood's nice old house about 4pm, finding his step-father, Don, napping. We had a nice conversation with him throughout the early evening while I was making a spaghetti dinner. He is still working at the airport with a lot of night shifts. Don is from the Newfoundland south coast, around Burgeo, and has some Native Micqmaq ancestry. Christie walked the DL beach in the late afternoon sun, finding many people there, even this late in the season and late in the day, for it is Sunday and gorgeous. Everyone is still talking about the amazing weather this summer. I got email confirmation from Frederic Simard that he can receive and process the artifacts this fall, so we're clear on that crucial front. Unfortunately we've missed Greg again this trip; he's in New Brunswick for a Bruce Springsteen concert and is in charge of an environmental program at Wilfred Grenfell University in Corner Brook. Will says he recently heard that Pasadena is the most rapidly-growing municipality in Newfoundland!

Sunday 26 August – Deer Lake to Nova Scotia

I slept out on Greg's back porch last night, with bright stars overhead, a breeze, and the periodic noise of cars and trucks on the Trans Canada Highway to make sure I appreciated the otherwise sylvan scene. Don nearly stepped on me when he came out around 4am to go to his job at the airport. We rose at 6am and left soon for Port aux Basques, keeping a watchful eye out for moose along the roadside. About halfway down the coast we came across a mother and calf about to cross the highway, but they saw us coming and turned back into the woods—we would have liked a bit closer encounter but at least got this cameo view. A short distance on we entered a corridor where they had constructed a link fence at the edge of the woods for 10-15 miles, on both



*Fig 1.30: Waiting patiently for the Ferry in Port aux Basques.
Photo by W. Richard*

sides of the road, broken every kilometer or so by door-like "moose gates." A interesting waitress at the local Irving station answered my inquiry about how the bulls get through these narrow gates: "The same way they get through the forest—they walk through." In response to Will's inquiry about whether the maple syrup for his pancakes was "real or synthetic" she disappeared and returned after making "a thorough search of the entire place and found no real syrup." Will was disappointed, ordered the pancakes anyway, and appreciated her diligence.

By the time we got to Port aux Basques the weather had cleared and sun was out. A huge number of trucks were waiting in the lot and our ferry, *M/V Blue Pattees* (the name of a crack regiment of Newfoundland soldiers who wore distinctive blue calf leggings), was just pulling in from North Sydney, requiring a four-hour turn-around. We left at 3:30 with our car on Deck 1, the bottom deck. We had dinner onboard, and Will and I the rest of the voyage working over the draft pdf of *Maine to Greenland*. We landed at 7:30 and within an hour were on the road, a 12-hour ride ahead of us. We needed to reach the Portland airport by 11am at the latest for Christie's and Christine's flight. Will drove to the Canso causeway and I from there to the New Brunswick border. Will took over from there to Portland. Fortunately we had excellent conditions—a three-quarter moon, no thunderstorms, and the night traffic was mostly headed east. The only problem was the cramped conditions; whenever we stopped for gas we had to pry ourselves out of the car. Dawn came around Bangor and we reached Portland earlier than expected, about 8am, leaving time for a nice breakfast at a Friendly's Restaurant. Christie was able to jump an earlier flight to NYC, and I waited with Christine until she flew off for DC; Lynne arrived with Mikki about 12:30. I was pretty bushed from the drive and dozed most of the way to Fairlee, VT. Shortly after I was locked into SI email, the Republican Party's Presidential Convention had begun, and the long summer's highly successful field program was over.



Fig 1.31: Pitsiulak crew and the Colbourne Clan enjoy a feast at Colbourne home. Photo by W. Richard

4 - Hare Harbor - 1 (EbBt - 3)

Excavation Unit Descriptions

The following section documents the results of 2012 excavations of individual excavation units in the Areas 9, 8, and 7.

Area 9 Mid-Terrace, Southside

2S/8W (Will, WF, Christine) This 2x2 m square began as a test pit on 9 August and was expanded into a full unit upon finding a deep deposit of black earth with charcoal, tiles and artifacts. The unit is located between the terrace front and the S1 cookhouse, at the southern edge of the site clearing. Spruce thicket begins at the south edge of the square and extends several meters to the ledge bordering the site on the south. This is a previously untested area, although a test pit had been excavated in a cluster of boulders several meters to the SW years ago, but it did not produce much. 2S/8W is in the only relatively level area between the cookhouse and the A8 midden. Ridges in the sod west and north of the unit suggest possible walls or structures. When excavated, many rocks were found dumped into the cultural deposit, which in places is 50-60cm deep. An alignment of rocks runs through the unit from west to east, but it is not clear if this is from purposeful construction. What is clear is that this area was used as a dump and has a deep deposit with many tiles present, and many of large size. Many tiles were found in vertical position, often alongside rocks as though they had been dumped here. At the very bottom of the deposit black, charcoal-stained earth trends into consolidated peat with some charcoal and tiles, and then into sterile peat that has no charcoal and represents the pre-Basque ground surface.

Finds (53) from the unit include a fine example of a rectangular x-section whetstone, a sheet of lead with layers hammered together, flint fire-starting flakes, a variety of plain EW types (white-glazed and olive color-glazed EW), pipe bowls and stems, a single small fragment of bird or small mammal bone, a concreted mass of iron, about thirty nails, and a few spikes. The unit is not easy to interpret. It contains both industrial amounts of tile and charcoal, and yet a fair amount of domestic ceramics. Only one component is present; there is no internal stratigraphy; and the presence of pipes suggests a 17th century date similar to the A8 midden and S5 Inuit house. Except for the clay pipes and rare examples of stoneware, these materials are found in the underwater site. There must be a larger context for this unit, and it is probably buried beneath the spruce growth between this square and the ledge. Except for a tiny fragment, no bone or unburned wood was preserved. If we return to Hare Harbor, we would cut the spruce back to the ledge and explore this southern margin of the site.

Area 8, S5 Midden

0N/16W (WF) This unit is one of three marking the southern boundary of the A8 midden excavation and is only 2m from the preferred pathway up from the cove. However, this pathway also serves as the drainage for the beaches above and is studded with medium-to-large boulders; its marshy ground is not prime territory for habitation activities, but it seems to have been an area where tiles were frequently dumped to help create dry ground. Tiles were found everywhere in this square not occupied by protruding beach cobbles. The only cultural construction is an irregular east-west alignment of slabs that create an irregular pathway, although whether it leads further up the beach to the east is not clear. Artifacts (13) were not abundant and most were clay pipe fragments; a piece of stoneware, a Groswater chert microblade core, and a few nails were also recovered.

0N/18W (Richie) This unit was relatively free of large beach boulders and its surface was composed mostly of gravel and small rocks, with four flat slabs in irregular positions; nothing suggested a continuation of the slab

alignment in 0N/16W to the north. A few concentrations of tiles was present, but no concerted attempt had been made to create a tile covering or pavement, probably because the soil here is sandy and firm and is west of the site's drainage channel. Finds (15) included two large spikes, a few smaller nails, part of a square green glass bottle, a piece of aqua-colored glass, and a rectangular mass of iron. This square seems to lie south of and beyond the A8 midden.

0N/20W (Richie) This southwestern-most midden unit is only a couple meters from the terrace edge. Its substrate is small beach rocks and gravelly sand. There was no visible structure to the unit, and the finds (15) were a continuation of the midden. One of the more interesting pieces was a pipe-stem with a stamped diamond-shaped design containing four fleur-de-lys emblems. A mass of iron which appeared to be a rolled sheet, a few pieces of earthenware, thin 'goblet' glass, chert flakes, and a round lump of pumice were recovered. The pumice probably originated in an underwater eruption in Iceland and floated from there to Quebec where it was found and used by the Inuit as an abrader. It can probably be identified chemically to its place and date of eruption.

2N/18W (Richie, Mathieu) This unit lies on the west side of the second-largest boulder on the lower terrace. Most finds were concentrated in the northwestern part of the square. The midden earth was typical of other squares, with no internal stratigraphy, full of charcoal stain, and at the bottom had patches of unburned humified peat. Finds (54) included several large spikes (relatively few small nails), stoneware bottle neck, body, and flat base sherds, a large number of EW sherds (some with rims, others with white glaze), clay pipes, marmite sherds with roulette decoration, a musket ball, an iron blade fragment, pyrites and flint nodule fragments, a piece of window glass worked into a cutting/scraping tool (Inuit technology!), and light green bottle glass.

2N/20W (Christine) This unit is contained within three large beach boulders rising nearly a meter above ground. The soil between these rocks contained a rich midden deposit, and almost all of the 58 finds (only a few nails and one spike) came from the northern half of the square and included pipe fragments, EW sherd (some with rims), glaze fragments (white with green and brown paint, white with blue bands on the rim, brown paint on white glaze with a 'Japanese-like' motif), EW with *repoussé* tree- or Orthodox cross-like motif), flint flakes, bluish glass with air bubbles, parts of a knife handle and its blade (a first for the site), and part of an iron cooking pot.

2N/22W (Christine) The SW corner of this unit nearly reaches the edge of the terrace, yet still contained many finds (55). Its NE corner is taken up with a huge, high boulder, under whose SW overhand many objects were found. Among them were stoneware, four blue seed beads, EW rim and body sherds, three marmite fragments with criss-cross roulette motifs, part of a square green glass bottle, flint flakes, and a worked piece of quartz. The large number of small EW fragments also occurred in neighboring units.

4N/18W (Sarai, Cristina, Richie) Only the western part of this unit was available as its eastern half is occupied by huge beach boulders, and a large rectangular block occupied the southern wall area. Nevertheless many finds (39, excluding a huge cluster of nail fragments) were recovered in the space between, and a large masse of congealed iron (nails?) was found in the center of the square against the large boulder. Most of these nails were small to medium sized. A few chert/flint flakes, window glass, pipe stem, a possible iron blade, a spike, a red and white striped black bead, and three fitting pieces of a stoneware base that fit large fragments Richie found in 10N/22W, comprising a tall open-mouthed cylindrical "milk jar" similar to one Anja Herzog assembled from finds in S1.

3N/20W (Christie) This southern half of 4N/20W (the northern portion was excavated by Sarai in 2011) had a bonanza of finds in spaces between the large boulder outcrops in the southern edge of the unit. 36 artifacts were recovered from the northern half of this unit last year, and Christie brought the total to 101, of which many were small fragments of EW. This unit turned out to be very deep—in places 25-35cm—full of stuff to the bottom and had a level that was packed with roof tiles about halfway down in the deposit. A large, round, ca. 20cm-thick ‘table-like’ granite rock lay flat in the cultural deposit at -250cm below datum. Among the finds were blue and white seed beads, different types of EW (including a strap handle), a plain EW rim and a vessel base with a glazed interior, Normandy stoneware rim and bottom fragments, a fluted marmite strap handle, white and blue and white-glazed EW fragments, an off-white glazed EW sherd with narrow rust-colored bands around the body (I’ve never seen this decoration before), some flint/chalcedony strike-a-light flakes, and strangest of all, fitting fragments of an extremely thin ground slate flensing knife blade made of rather soft banded slate or mudstone. This piece seems to be the proximal, handle end of a blubber knife. One fragment was standing straight up, vertical, between two pieces of roof tile; the other was lying flat beneath roof tiles directly below the vertical piece. Their close proximity, only a few centimeters apart, suggests the two parts broke when they were dumped into the midden. Both sides of the blade were polished, and grinding striations and small pecking marks can be seen. The shape and drilled hole identifies the piece as a Thule, not Dorset, implement, but how it arrived in a midden associated with the S5 Inuit house is a mystery. It could not originate directly from Thule people and be in a ca. 1700 Inuit dump, mixed with Basque and later West European artifacts. It might have been brought here as an heirloom by the Inuit occupants of S5. In any case it is the southern-most Thule artifact I know of and adds another remarkable find to the Dorset and Maritime Archaic points we’ve found here previously.

4N/22W (Christie) The high concentration of midden material continued in the unit south of 4N/20W, which had 115 artifacts. This unit also reached the edge of the terrace front in its SW corner, where finds dropped off markedly. The most unusual find here was a fancy small clear glass medicine bottle with a tiny spout and intact glass seals, and cream-colored earthenware fragments with narrow gold-colored zig-zag designs. Large boulders in the SE and central/NE parts of the square explain the patterns of finds that exclude these locations. Finds included a large and small fragments of a cylindrical stoneware jar, an ornamented pipe stem, flat glass, a small sheet of lead and another lead sheet folded over a fibrous organic material, flint flakes, a flint gun spall, EW with several rim forms and decoration (grey glaze similar to the one in 3N/20W with maroon-painted bands; white glaze with a gold-painted zig-zag motif; marmite sherds with vertical- and diagonal-check roulette motifs), a lenticular white bead with blue longitudinal stripes, a blue seed bead, a flat iron sheet (blade?), olive-colored and light blue bottle glass, and a few spikes and nails. Many of these finds were in the lowest portions of the black-earth midden, below the level where most roof tiles were found.

4N/24W (Christie) Only the eastern half of this unit was excavated, due to lack of time on the last day of excavation and because tool finds (23) fell as the terrace edge was approached. Almost all finds came from the eastern edge of the square. The deposit was the same black-earth midden as in other units, but was quite thin and blocked by a large rock in the center of the excavated area. The end of a pipe stem found here bore the teeth marks of its user. Other finds included a light blue seed bead, SW and EW sherds, a piece of iron with a rectangular shape may be a knife blade or a piece of iron strapping, a ground slate flake (Maritime Archaic?), and a lead musket ball.

6N/18W (Cristina) Only the western edge of this unit west of the high central boulder could be excavated. Nine finds were recorded: stoneware sherds, two pipe stems, thin goblet glass, and a thick mass of iron with a triangular axe-like cross-section.

6N/22W (Will) This unit, like most of the terrace-front A8 midden units, had pockets of midden between large rocks. This square however was different in having an overlying deposit of brown sand above the black earth midden in the western side of the square, a soil that looked like burned hearth earth but is actually the rotted remains of the black schist rocks found at the base of the cliff. Finds (36) included a lead-wrapped iron spike—an impromptu “Inuit-style” implement manufactured locally for use as a fishing sinker; the distal end of a second similar specimen also was found. In addition we recovered an iron rod (possibly an auger bit or a harpoon ice pick or foreshaft), a possible blade or point made of iron, a grindstone fragment, a Normandy stoneware cup bottom, a blue seed bead, an iron band or point, several spikes, and many nails.

6N/24W (Marijo and Sarai) The eastern part of this unit displays the brown earth seen also in 6N/22W, the remains of a rotting schist rock, and a large boulder takes space in the south central part of the unit. Its western edge approaches the terrace front. Finds (18) were few, but interesting: small and large pieces of a globular stoneware vessel, several nails, flat glass, and three unusual objects—the bit half of a Groswater Paleoeskimo celt/axe made of slate, a Groswater chert microblade of green chert, a Groswater biface point tip, several GW chert flakes, and a peculiar flat lead ornament formed into a cross-like shape with two tab attachments bent over on the reverse side to hold the piece on to a string or some other material. A shiny rectangular black flint chunk that resembles an over-sized, unfinished English gun flint was recovered.

8N/18W (WF) This unit lies at the NW corner of the ‘big boulder’ south of the south wall of the S5 Inuit dwelling. The deposit included lots of charcoal and many fragments of tile and small fire-cracked pieces of granite that seem to have been re-deposited here from activities that took place elsewhere on-site. At the bottom of the deposit remnants of unburned peat remain from the initial site clearing by fire, and the upper portions of this peat contained charcoal. In addition to nails and tiles, this square produced pipe stems, EW, stoneware stoppered bottle mouth fragments, a perforated piece of lead that may have been a clothing ornament, green window glass, and a pyrites nodule.

8N/22 (Christine) This unit was filled with large beach rocks, had two concentrations of roof tiles in the north and south parts of the eastern half of the unit and produced large numbers of objects (68), most across the center of the unit from west to east. Finds included large rim fragments of Normandy stoneware as well as several body sherds, nails and spikes, a large rectangular plane or blade-like piece, a possible auger bit, a possible chisel hammered from a nail head, a pyrites nodule, a small fragment of bright yellow-glazed earthenware, bubbly green and aqua-tinted glass, and two or three glass bead types, including an indigo-colored seed bead and a red Cornaline d’Alleppo.

6N24W (Marijo and Cristina) This unit was full of rocks but produced materials concentrated in the central part of the square, in the interstices. Here and in most other squares we found small-to-medium sized pieces of mica. Among the finds (44) were several fine pieces of which the most surprising was a sinker made from a lead-sheathed nail with a few holes in its sides that may be a result of iron corrosion breaking through the lead covering. The lead in this piece, unlike others we found, has been melted and molded around the nail, producing a symmetrical end-product. This process does not seem likely to have been done by Inuit. A small piece of sheet iron looks remarkably like a knife blade. Several small Groswater microblades were recovered, as well as two chipped Groswater burin-like tools with burin blows and ground distal tips, indication dates of ca. 2600 BP. These finds are not unique as we found a small GW hearth on the upper beach in Area 2, but the new finds provide more control on the sea level at that time by being found on a much later (lower) terrace. These finds were

located at the interface between the black earth midden and the sterile beach soils and provide added documentation for the Groswater hearth in A2.

8N/26W (Christine Johnson) This terrace-front square had a low density of objects scattered throughout the unit, but mostly in its southern portion. Concentrations of charcoal were found in the northern and southern areas in the eastern portion of the square. The basement was a solid packing of beach cobbles. The 36 finds include a black glass bead with wavy white bands, ornamented and plain pipe stems and bowl fragments, a possible tanged chisel, and EW and SW sherds.

10N/18W (WF) This square lies at the north end of the big boulder and forms the base of the south side of the southern wall of the Structure 5. More than being just part of the A8 terrace front midden, it seems to be part of the upward-sloping S5 wall. A large chunk of whalebone embedded in the sod in the NE corner of the square is certainly part of the S5 wall construction. Beneath the turf was a loose sandy, charcoal-stained soil that contained many nails and a few pieces of stoneware and earthenware. This level is associated with the S5 Inuit dwelling and contained stoneware and pipe stems. Tiles were present throughout, but were most common at the interface between the upper black earth and the lower BE, which was more consolidated and contained chunks of charcoal not present in the upper horizon. This level lacked stoneware and pipe stems and grew increasingly filled with charcoal chunks with depth. Its bottom was usually signaled by a concentrated charcoal lens lying over a sterile peat layer, the remains of the original ground surface before the site was initially cleared. Tiles were frequently found, and sometimes nails, at the lowest level. I did not complete the excavation of this lower level because of lack of time, rarity of artifact finds, and irrelevance to the Inuit focus of our present work.

This unit lacked any evidence of architectural structure, other than the presence of a large flat slab in the SE corner, a diagonal line of small flat stones angling SW/NE in the middle of the square, and another small flat rock in northern central area. The SE slab may indicate the presence of an interesting feature beyond the square to the SE. This slab appears to be in the upper soil level, and next to it was found several fragments of an EW bowl bottom bearing remnants of yellow glaze on both sides. Also at this level was a rim fragment of a large iron pot and the burned, friable remains of an Inuit soapstone lamp which had decomposed completely but retained some surfaces showing oil encrustation. Several pieces of a Normandy stoneware jar bottom and EW also came with this upper horizon, which seems related to the Inuit occupation of S5. The deeper level is probably of Basque origin, related to the charcoal production activities in this part of the site. Also recovered was a small pendant-like piece of sandstone with grooves around its top, perhaps used as an ornament.

10N 22W (Richie) West of the north-south line of units excavated in 2011 (20W) Richie found some unusual material that was deposited just outside the opening of the S5 entrance passage. This unit produced a small hearth in its SW corner and several small paving slabs in the north that seem likely to be the outer limit of the S5 entrance passage. Artifacts included large pieces of stoneware (some fitting with finds from 4N/18W), yellow-glazed EW, bubbly green glass, a small lenticular blue bead, a Cornaline d'Aleppo bead, and a large rectangular piece of iron that might have been a wood plane blade. Also found were an onion-style green glass bottle base whose rising side had been chipped into a knife edge, a possible small knife blade of iron, a lead musket ball, a thin sheet of lead, and a small triangular ground slate point, broken at the tip and midsection, probably a Thule product, although without a drilled hole one cannot be certain. Like the Thule flensing blade, it was associated with S5 midden materials, so it cannot be from a previous Thule-period occupation. It seems equally unlikely to be Dorset or Groswater.

10N/24W (Will) Will's unit was filled with large boulders, and all of the artifacts were found in small pockets between the beach rocks in the eastern half of the square. Included among the 30 finds were a stoneware bowl bottom, a glass bottle bottom, a musket ball and a peculiar tiny soapstone ball of the same size, a 'pocket-knife' made of a lead handle with slots for two iron blades, pipe stems and a bowl, a small rusted mass of iron, a pyrites nodule, and the usual nails, spikes, and tiles, many of which came from the deepest recesses between the boulders and could not have been present at these depths without the original ground surface and peat having been burned off prior to the Inuit occupation.

10N/26W (Richie) Richie's unit had a similar eastern distribution of finds (27), with finds coming from pockets of soil between the rocks. This square is within two meters of the bank edge. Finds included decorated pipe stems, possible iron knife blade fragments, musket balls, an onion-style green bottle bottom whose edge was chipped into a knife edge, a ground slate endblade broken at the tip and base (no Thule-style drilled hole or keeled crest), a chunk of quartz with battered ends, and nails and tiles.

Charcoal Pit – Area 7 We did not finish excavating the charcoal pit area in 2011 because a rain storm filled these pits with water. This year we excavated the pit and tested two units to its south, drew stratigraphic profiles, and clarified the earth and rock mound in 18N/32W.

18N/32W (Richie) This unit lies on the eastern side of a mounded pile of rock and earth. Last year the unit to the east displayed a profile on its west wall with a unit of brown sand that seemed like it might be hearth remains similar to the elevated hearth east of the charcoal pit. Richie excavated only the NW quadrant of this square because rock-fall blocked further excavation. Nevertheless we were able to determine that the layer of brown soil beneath the surface was probably backfill from the original excavation of the charcoal pit. Beneath the turf are a few centimeters of grey sandy soil. The eastern portion of the NE quadrant was underlain by grey sandy soil with higher charcoal content. In the western part of the quad fine brown sand overlay this charcoal/grey sand and continued to a depth of 35 cm below the surface. Beneath this was a continuation of the charcoal-rich grey sand. It appeared that the southern half of this square had been excavated deeply, but we could not determine why and did not have the time to investigate further. There remains a question about the nature and purpose of the mounded-up rock and sand deposits in this square and the one to the west.

20N/32W (WF) This unit is directly south of the eastern portion of the charcoal pit. Time permitted excavation only of the NW quadrant, which revealed a thin surface humus layer overlying a thin layer of grey sandy soil with bits of charcoal. The northern part of the profile has a thin brown sand layer derived from charcoal pit excavation and below this was a thin layer of charcoal through the profile. Still deeper was a mottled brown soil with small charcoal lenses. This lay on a 1-2cm thick peat layer that represents the original pre-Basque ground surface, and below that was sterile beach gravel. No artifacts were found except one small nail found in the upper grey sand.

22N/32W (Will) Will reopened the 2011 charcoal pit excavation by digging the western half of 20N/32W that constituted the pit's eastern half. The west wall profile at 18-20N at 34W cut through the middle of the pit and showed it to be about 2-3m in diameter, extending from 18N to north of the 20N line. There were many rocks in the pit fill, but when excavated we found the pit had been dug into light brown sand that had no rocks. Before excavation the ground surface in the center of the pit was 35cm below its outer perimeter. Below this, fill extended another 50cm, resulting in a total depth from the upper edge to base of ca. 75cm. The bottom 25-30cm of pit fill was pure charcoal; a roof tile fragment was found in this charcoal layer 10cm from the bottom of the pit. In

2009 a lenticular blue glass bead was found in this charcoal level. This layer was overlain by 20-30cm of deposit containing alternating layers of charcoal and grey sandy soil. These layers must have resulted from repeated charcoal-making episodes and/or charcoal and sand washing into the pit after it was abandoned. Above this was 15-25cm layer of brown soil intermixed with large rocks eroded from the hillside above. The western half of the pit (occupying the eastern half of 20N/34W) could only be partially excavated because it was covered by an immoveable slab of cliff-fall. Our 2008 test pit was placed along the south side of this slab had obliterated the stratigraphy of the 34N profile south of 19N. After excavation was complete we profiled this section, photographed all faces and backfilled the pit.

2012 Summary of Hare Harbor-1 Excavations

Hare Harbor-1 (EdBt-3)

The Hare Harbor site (EdBt-3) continues to produce surprises which prompted us to return in 2012 to finish excavating a large Inuit midden associated with Structure 4, a large rectangular Inuit communal house, and to expand the sample of underwater Basque deposits associated with a series of ballast piles in the anchorage cove adjacent to the land site. Previous research on land has identified two structures of Basque or Western European origin: Structure 1, a probable cook-house with two occupation components, ca. 17th C. European component, probably of French Basque, above a late 16th C. Spanish Basque component; and a probable Basque smithy (S2). Additionally we have excavated three Inuit structures: the entrance passage and floor of a sod house (S3) below the paved floor of the S2 smithy; an intact sod-walled Inuit communal winter house (S4); and a partially constructed sod house (S5). In addition we have located a probable Basque hearth (S6) and a charcoal pit (S7). In 2011 we discovered a midden that extends from the S4 entrance passage across the front of the Hare Harbor-1 terrace. The midden was sampled in 2011 and became the primary target of excavation in 2012 in order to assemble a complete inventory of finds that it shares with the S4 dwelling. In addition to the land work, availability of a larger field team (see acknowledgments) enabled us to substantially increase the underwater excavation area with the goal of increasing our sample of Basque/European materials. In the following we describe each of these new research targets.

Structure 7 Charcoal Pit Several years ago we discovered a pit (S7) at the northwestern extremity of the site and a test pit revealed a thick deposit of pure conifer charcoal and one lenticular blue glass bead in its midst. In 2012 we fully excavated the eastern portion of the pit which turned out to be 3x2m in diameter and 75cm deep at the 34W profile. The bottom 25cm of the deposit was pure charcoal and included an embedded roof tile; the blue lenticular glass bead found in 2009 dates the pit to ca. 1700. Layers of charcoal and sand probably indicate repeated charcoal production episodes followed by erosion and filling with slope wash and rocks in the upper part of the pit. A large rock slab lying across the top of the western part of the pit had fallen from the cliff above, possibly terminating the pit's use as a charcoal production feature. This was probably part of the huge rock-fall that covers the slope from the cliff to the shore west of the site. Some of these boulders have roof tiles wedged beneath them.

The Hare Harbor Charcoal Industry Test pits throughout the site's occupation area show a thin layer of charcoal is present at the base of the cultural deposits, resting on sterile sand or burned peat. The charcoal layer includes fragments of burned logs and roots, some in situ in growth position, and remnants of burned peat ground cover and results from the initial fire-clearing of the site's original spruce and alder vegetation. In addition to the S7 charcoal pit, excavation of the concentration of large boulders that form the front of S5 and extend west to the terrace edge revealed they were embedded in coniferous charcoal. Because these boulders were fire-spalled and blackened it appears that this area was used for burning vegetation to create charcoal. Mixed in with the 40-60cm deep charcoal fill between the boulders the occasional roof tile, iron spike, and pieces of grey Normandy stoneware.

Large amounts of charcoal were present in the floor deposits of the cookhouse (S1), the smithy (S2), in the Area 8 midden adjacent to S4 Inuit dwelling, in the south and west walls of the S4 dwelling, and in our test pit in Area 9. The S4 wall construction was unusual in that most Inuit winter dwellings have walls made of rock- or whalebone-filled soil or peat, whereas the S4 walls were largely composed of charcoal with rocks and whale-bones embedded in the charcoal. Because this charcoal is largely coniferous with small fractions of alder and birch, it must have been produced from the local forest cover rather than being of European origin. Most is from trunks less than 8-10cm diameter and from smaller limbs and roots. The charcoal must have been produced by smothering wood fires set among in the S7 pit or the Area 7 boulder concentration. Charcoal was needed for smithing, but its most likely use would have been for fueling ship-board domestic cooking and rendering of whale oil, since by the late 1600s production had shifted from shore-based try-works to ship-based factories. All of these charcoal deposits have similar characteristics: concentrated masses of charcoal containing both small and large chunks; presence of fire-cracked and burned rocks and spalls; and association with roof tiles, clay pipes, glass beads, Normandy stoneware, and iron nails. These cultural materials indicate a 17th century date for production of the majority of charcoal rather than association with the 16th C. Basque occupation located north of the S1 cookhouse. The find of an Inuit soapstone lamp on the top of a hearth platform in Area 7, in the bank units north of S4, S5, and S6, and composing the bulk of the S4 house walls suggest that Inuit were involved with this charcoal production activity. It seems quite likely that charcoal production may have been paired with the production of wood timber evidenced by the large volume of wood debitage (ships, slabs, bark) found in the stratified underwater deposits in the anchorage cove. Timber and charcoal production may have been as important an industrial activity as whaling and fishing at the Hare Harbor site.

Area 8: The Structure 4 Midden The 2011 and 2012 midden excavations produced a large inventory of artifacts and materials associated with the S4 Inuit house immediately to its north. The midden begins at the outer edge of the S4 entry passage and extends west to the terrace edge, east to the group of large boulders in the middle of the terrace, and south to a boulder cluster near the southern edge of the terrace. The midden consists of a single 10-20cm thick layer of charcoal-stained black earth overlain by a thin layer of humus and grey leached sand and underlain by sterile beach deposits. The latter was filled with beach cobbles and, in its northern area, boulders that contained midden material in the interstices between the rocks. The patchy distribution seen in the mapped locations of artifact find spots is predominantly a function of the boulder structure of the terrace in which boulders grow larger and protrude more into the surficial deposits toward the northern part of the terrace. Only a few culturally-paced rocks (slabs) were found in the entire area, at the southern end of the midden where a pathway from the terrace bank to the upper beaches crossed a boggy area. The only other feature in the midden was a small hearth feature around which we found several Groswater Dorset implements. Preliminary study does not indicate any activity areas or internal structure to the midden finds. The finds included building materials, nails, tools, charcoal, production detritus, food bone, and artifact fragments. Fitting fragments of individual stoneware vessels found at opposite ends of the midden, as much as 10-15m apart, point toward random dumping episodes, while the close proximity of fitting fragments of a Thule-style slate flensing knife and many cases of ceramic fits in close proximity suggest breakage during or after a single dumping event. Some clustering of earthenware sherds and glaze fragments resulted from breakage in-place. Some areas of the midden had a much higher concentration of ceramics and nails than others. However many artifacts had a random distribution, for instance, clay pipe fragments, glass beads, and, in most cases, nails. Other than charcoal, organic materials like wood and bone were completely absent, but the presence of many clenched nails suggests wood planks were once present in the midden but had decayed.

The midden finds were similar matched those found on the house floor of S5. Numerically, the most common finds were roof tiles, followed by medium-sized nails, and earthenware (EW) fragments. Like nails,

which were badly rusted and fragmented, high EW sherd counts reflect their highly-fractured condition, a result of their porous nature and sensitivity to frost-fracture while in the ground. Many of these sherds were reduced to paste or consisted only of the glaze remnants from their surfaces. Among the EW finds were marmite vessels with rims, fluted strap handles, and roller-applied check-stamped motifs. Other EW vessels carried glazes of various colors and designs. At least a dozen stoneware vessels of several types are represented, and because of their durability, many of these vessels can be reassembled. A variety of glass beads were recovered, most being types known previously from S5 or other areas of the site; all date roughly to the late 17th or early 18th C. A number of other unique finds appeared. These include a golf-ball sized piece of pumice; lead-sheathed or lead sheet-wrapped nails that appear to be fishing sinkers or jigger hooks; a double-ended knife handle made of lead with iron blades; small decorative lead ornaments for clothing or head-gear; and modified glass fragments chipped for use as knives or scrapers. Also found were musket balls (including one carved from soapstone), flint fire-starter flakes and cores, iron blades, and many other objects of iron so badly rusted as to make identification impossible. No objects of copper or bronze were present. In contrast to S5 and Area 7 generally, only a few soapstone lamp or vessel fragments were found. Finally, several artifacts from earlier times or cultures were recovered within the midden: a Thule-style ground slate flensing knife, a Dorset or more likely Thule ground slate endblade, and a handful of Groswater implements including microblades, an endblade, and two burin-like tools all of which came from a small area at the front edge of the terrace. These tools are identical to ones found in a small Groswater hearth feature near the cookhouse. The Thule materials were directly associated with the Inuit midden while the Groswater finds were from the base of the midden on sterile beach sand.

We believe we now have the full artifact assemblage from the Inuit occupation of the S4 dwelling. It appears that the midden represents several stages of house-cleaning and that many of the fragmentary finds found on the house floor should match those in the midden. Unfortunately no bone, ivory, or wood was preserved in either location, except for a few pieces of whale bone and a single badly eroded bone or ivory lance point from the S4 floor found in 2011.

The single 2x2 m unit excavated in Area 9 along the eastern edge of the site has a different character than the A8 midden. Its finds and deposit are more similar to the charcoal-production areas of A7—a mixed deposit of charcoal-stained soil, rocks, and cultural materials including glass, domestic EW, pipe fragments, a fine rectangular whetstone, sheets of lead, nails and spikes.

Some of the materials found in the midden are also present in the underwater site, in particular, lead-glazed earthenware, stoneware, glass, flint, lead objects, iron nails (rarely preserved), and roof tiles.

References Cited

Belvin, Cleophas

2006 *The Forgotten Labrador: Kegashka to Blanc Sablon: a Short History of the Lower North Shore.* Montreal: Queens University Press.

Beergeron, André, and France Rémillard

2000 *L'Archéologue et la Conservation.* Quebec: Centre de Conservation du Québec.

Brouague, Marcel de

1923 *Divers Mémoires de M. de Brouague au Conseil de Marine, Rapport de l'Archiviste de la Province de Québec pour 1922-23,* pp. 356-406. Ls. A. Proulx, Québec.

Davis, Stephen

2007 *Textiles, Vannerie et Fibres, in Grenier, Robert, Marc-André Bernier, Willis Stevens. 2007. L'archéologie subaquatique de Red Bay, la construction navale et la pêche de la baleine basques au XVI^e siècle.* Parks-Canada.

Drouin, Pierre

1988 *Des Baleiniers Basques à l'Île Nue de Mingan.* *Canadian Journal of Archaeology* 12:1-15.

Dumais, Pierre, and Jean Poirier

1994 *Témoignage d'un Site Archéologique Inuit, Baie des Belles Amours, Basse-Côte-Nord.* *Recherches Amérindiennes au Québec* 24(1-2):18-30.

Fitzhugh, William W.

2001 *The Gateways Project 2001: Archaeological Survey of the Quebec Lower North Shore, Gulf of St. Lawrence, from Mingan to Blanc Sablon.* 90 pp. Arctic Studies Center, Smithsonian Institution. Report on file at the Ministry of Culture and Communication, Quebec.

Fitzhugh, William W.

2006 *Cultures, Borders, and Basques: Archaeological Surveys on Quebec's Lower North Shore.* In: *From the Arctic to Avalon: Papers in Honour of James A. Tuck.* Edited by Lisa Rankin and Peter Ramsden, pp. 53-70. British Archaeological

Reports International Series 1507.

2009 *Exploring Cultural Boundaries: the 'Invisible' Inuit of Southern Labrador and Quebec.* *On the Track of the Thule Culture from Bering Strait to East Greenland,* edited by Bjarne Grønnow, pp. 129-148. *Studies in Archaeology and History*, 15. National Museum of Denmark, Copenhagen.

Fitzhugh, William W., and others (eds.)

2001-2012 *St. Lawrence Gateways Project Field Reports.* Published annually by Arctic Studies Center, National Museum of Natural History, Smithsonian Institution. Copies on file at Government of Quebec, Ministry of Culture and Communication and published online: http://www.mnh.si.edu/arctic/html/pub_field.html.

Fitzhugh, William W. , and Erik Phaneuf

2006-2012 St. Lawrence Gateways Project Annual Reports published in *The Provincial Archaeology Office Newsletter*. Provincial Archaeology Office, Government of Newfoundland and Labrador. Department of Tourism, Culture, and Recreation. St. John's, Newfoundland. <http://www.tcr.gov.nl.ca/tcr/pao/Newsletters/Newsletters.htm>

Fitzhugh, William W., Anja Herzog, Sophia Perdikaris, and Brenna McLeod

2006 Ship to Shore: Inuit, Basques, and Maritime Landscapes in the Northern Gulf of St. Lawrence. In *Maritime Archaeological Landscapes: Terrestrial and Underwater Sites*, edited by Ben Ford, pp 99-128. Society for Historical Archaeology. Springer Publications.

Ford, Benjamin

2009 Hare Harbor- 1 (EdBt-3) 2008 Underwater Site Report. In *The Gateways Project 2008: Land and Underwater Excavations at Hare Harbor, Mecatina*. Published by The Arctic Studies Center, Smithsonian Institution, pp 74-94.

Grenier, Robert, Marc-Andre Bernier, and Willis Stevens (eds.)

2007 *The Underwater Archaeology of Red Bay: Basque Shipbuilding and Whaling in the 16th Century*. 4 vols. Parks Canada.

Herzog, Anja

2008 L'Île du Petit Mécatina sur la Basse-Côte-Nord du Québec: Résultats Préliminaires des Analyses Céramiques d'un Site Voué aux Activités de Pêche Saisonnière dans le Golfe du Saint-Laurent entre le XVIe et le XVIIIe Siècle. In *Les actes du 133e congrès du Comité des travaux historiques et scientifiques*, Québec 2 to 6 June, 2008.

2009 Petit Mécatina Island: Basque and French Whalers and Cod-Fishers

in the Gulf of St. Lawrence from the 16th to the 18th Centuries. Paper presented at the Annual Meeting of the Council for Northeast Historical Archaeology, held at Québec, 15-18 October, 2009.

2010 The Study of Petit Mécatina 3 and the History of Whaling and Cod-Fishing in the Gulf of St. Lawrence During the 16th to the early 18th Century. Paper presented at the 2010 Conference on Historical and Underwater Archaeology, held at Amelia Island, Florida, 6-9 January, 2010.

Hume, Ivor Noel

2001 *A Guide to the Artifacts of Colonial America*. May 2001: University of Pennsylvania Press.

Levesque, René

2002 Bible d'Aménagement du Saint-Laurent Fleuve, Estuaire, Golfe. Phase Premier. La Basse-Côte-Nord: Porte Priviliégée des Pionniers d'Amérique. Draft manuscript available from the author and on file at Arctic Studies Center.

Loewen, Brad

2009 Historical Data on the Impact of 16th-Century Basque Whaling on Right and Bowhead Whales in the Western North Atlantic. *Canadian Zooarchaeology* 26:3-24.

Loewen, Brad, and Vincent Delmas

2011 Les occupations basques dans le golfe du Saint-Laurent, 1530-1760. Periodisation, repartition géographique et culture matérielle. *Archaeologiques* 24:23-55.

2012 The Basques in the Gulf of St. Lawrence and Adjacent Shores. *Canadian Journal of Archaeology* 36(2).

McLeod, B.A., M.W. Brown, M.J. Moore, W. Stevens, S.H. Barkham, M. Barkham, and B.N. White

2008 Bowhead Whales, and Not Right Whales, Were the Primary Target of 16th- to 17th-Century Basque Whalers in the Western North Atlantic. *Arctic* 61(1):61-75.

Mémoria Historiens

2012 Petit Mécatina: Preliminary Historical Report. Contract report prepared by Mémoria Historiens, March 28, 2012, on file at Arctic Studies Center, Smithsonian Institution.

Odriozola, Lourdes

2012 Report on Basque Archive Research. Iketeach: Respuesta a las Preguntas del Informe de Marzo de 2012. Contract report on file at Arctic Studies Center, Smithsonian Institution.

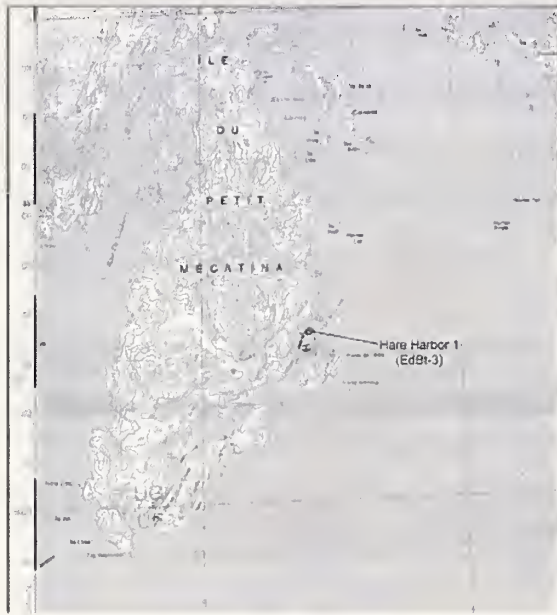
Stevens, Willis and Stephen L. Cumbaa

2007 Archéologie et archéozoologie marines de Red Bay : port baleinier du XVI^e siècle in Grenier, Robert, Marc-André Bernier, Willis Stevens. 2007. *L'archéologie subaquatique de Red Bay, la construction navale et la pêche de la baleine basques au XVI^e siècle*. Parks-Canada.

St. Germaine, Claire

2011 Appendix 2: Faunal Analysis of Finds 2002-2009. In *The Gateways Project 2010: Land Excavations at Hare Harbor, Mécatina* by W. W. Fitzhugh. Arctic Studies Center. Washington, DC: Smithsonian Institution.

Hare Harbor-1 (EdBt-3) Maps



*Fig 1.32: Map of Petit Mecatina Hare Harbor -1 site.
Section of map 12 J/11.*

Site Name: Hare Harbour

Borden Number: Ed Bt-3

Height ASL: ca. 9.14 meters

Military Grid Ref.: 50° 33.73' N 59° 18.12'W

Culture(s): Maritime Archaic, Groswater, Dorset, Basque, European.

Tentative Dating: 4000 to 18th C.

Areal Extent of Site: The entire area from the stone outcrop shelter to the southern ledge to the shore contains cultural materials. The area along the shore also contains cultural materials.

Nature of Soils/Sediments/ Vegetation Cover:

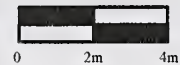
Grassy, alders, and some juniper under the dry areas of the shelter. There is drainage through Area 2 from the boggy area (A3) down to the shore. Spruce clusters cover the boggy area in the eastern part of the site.

Collection Procedure: Controlled excavation-piece-plotted except for small pieces of tile, test pits of underwater deposit. Samples taken are now at Government Archaeological Laboratory, Quebec for analysis, preservation, and cataloging by Frederic Simard.

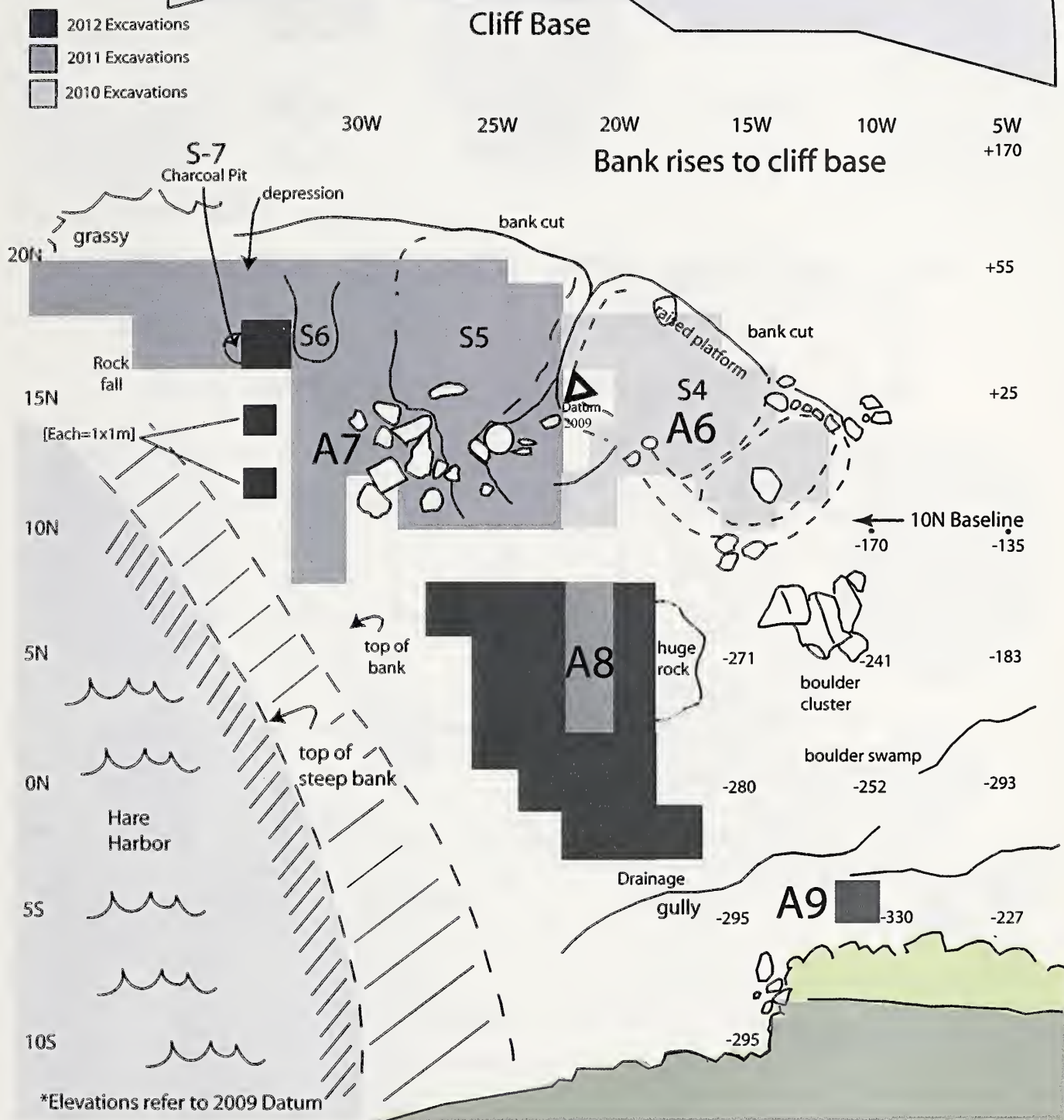
Excavated By: William Fitzhugh, 2012 *Pitsiulak* crew.

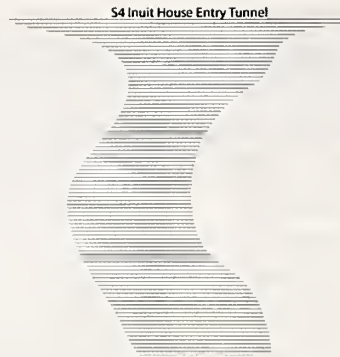
Dates Excavated: July 30, 2012 - August 10, 2012

2010, 2011 & 2012 Hare Harbor-1 Map

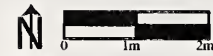


- 2012 Excavations
- 2011 Excavations
- 2010 Excavations

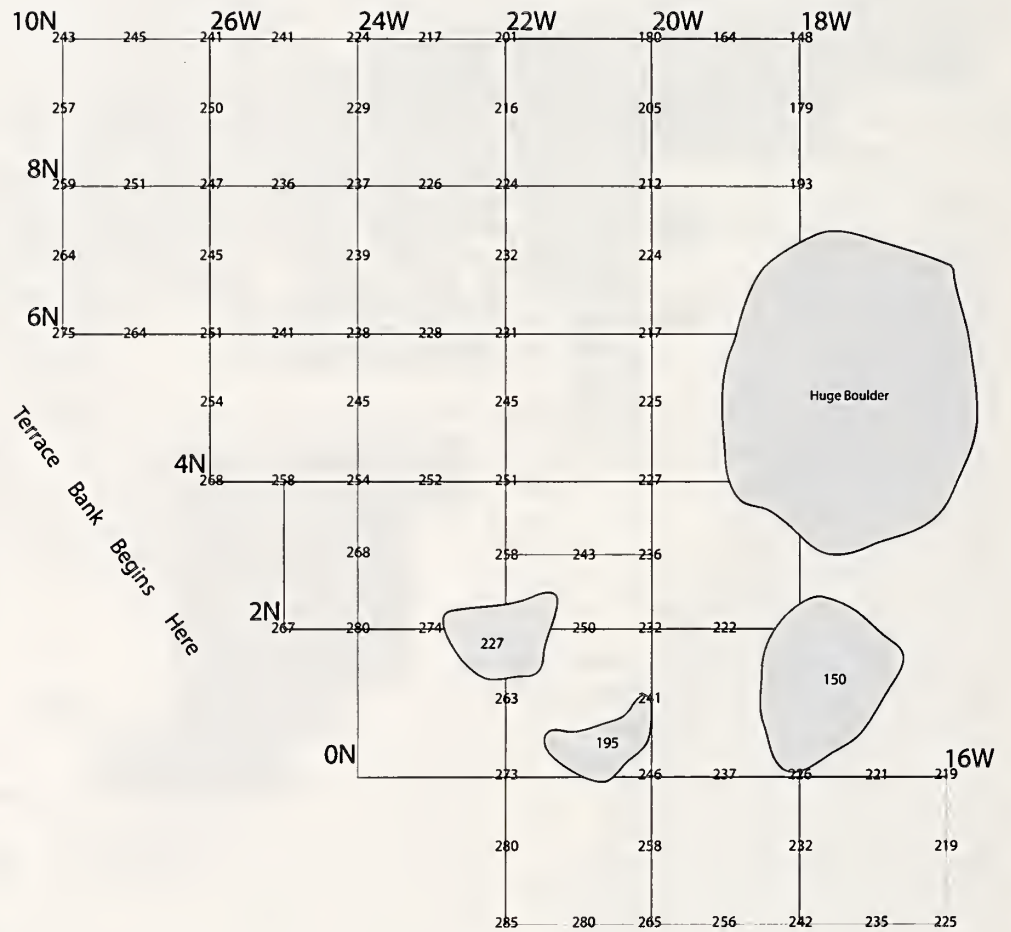




Hare Harbor-1 (EdBt-3)



Area 8 August 2012
Elevation Map
cm below datum

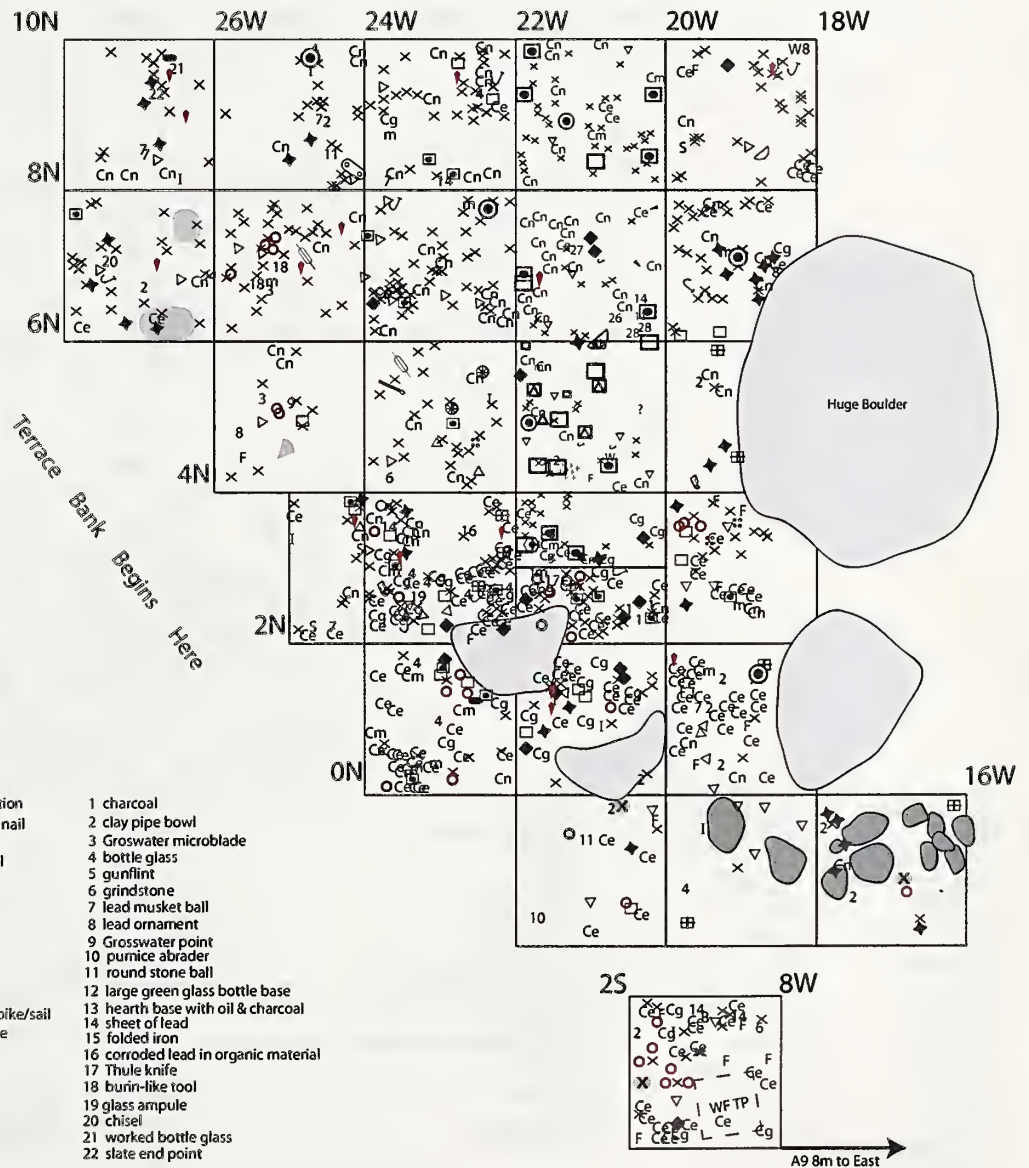
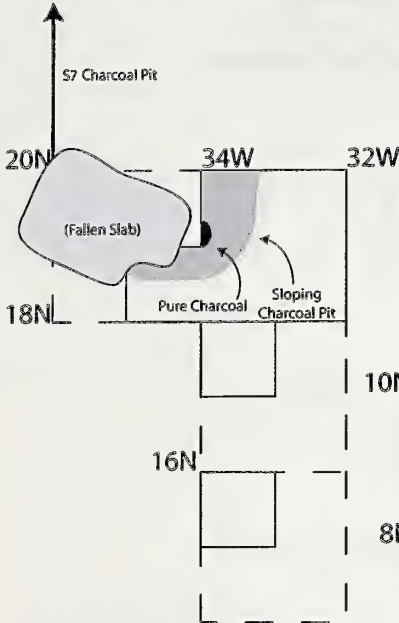


S4 Inuit House Entry Tunnel

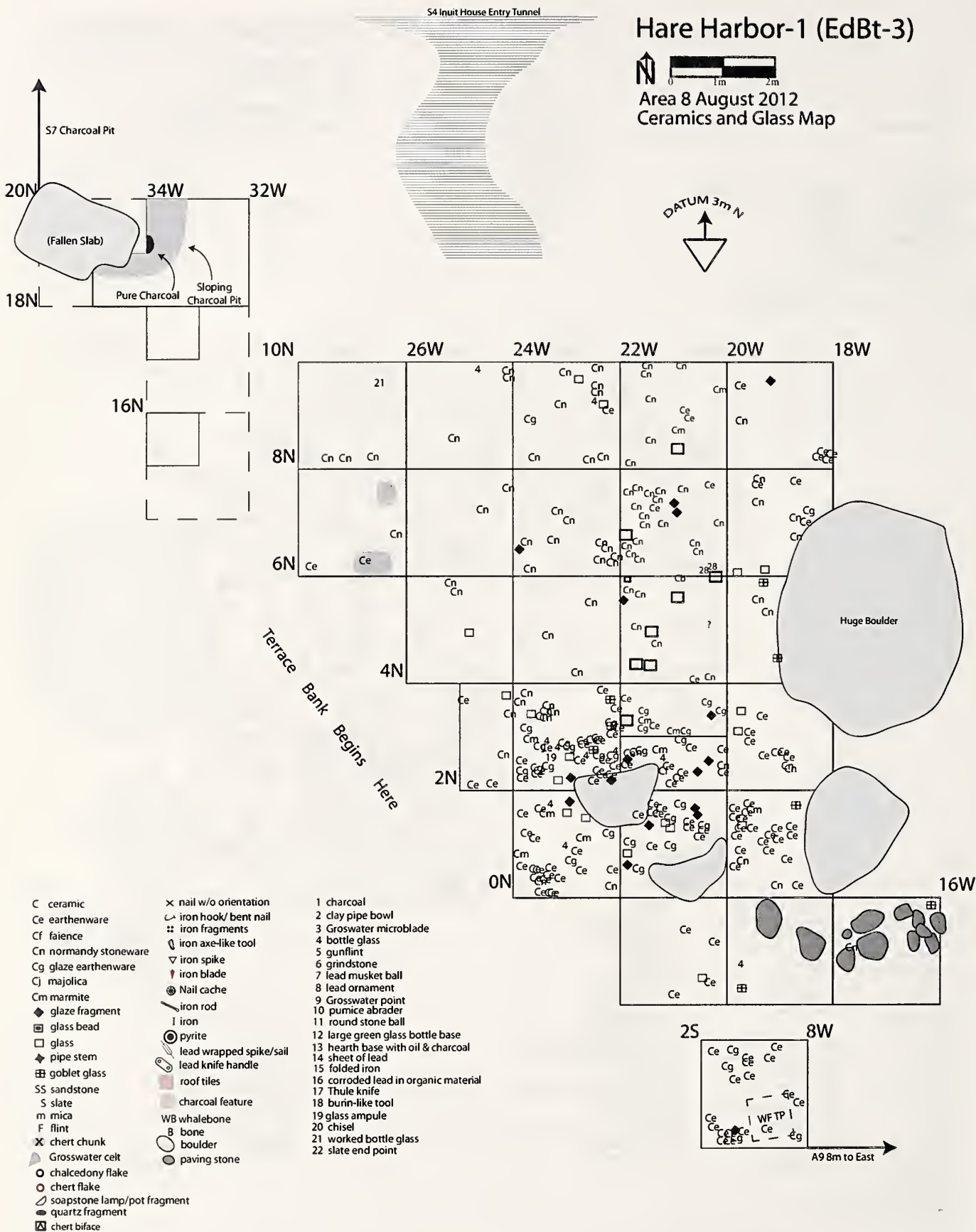
Hare Harbor-1 (EdBt-3)

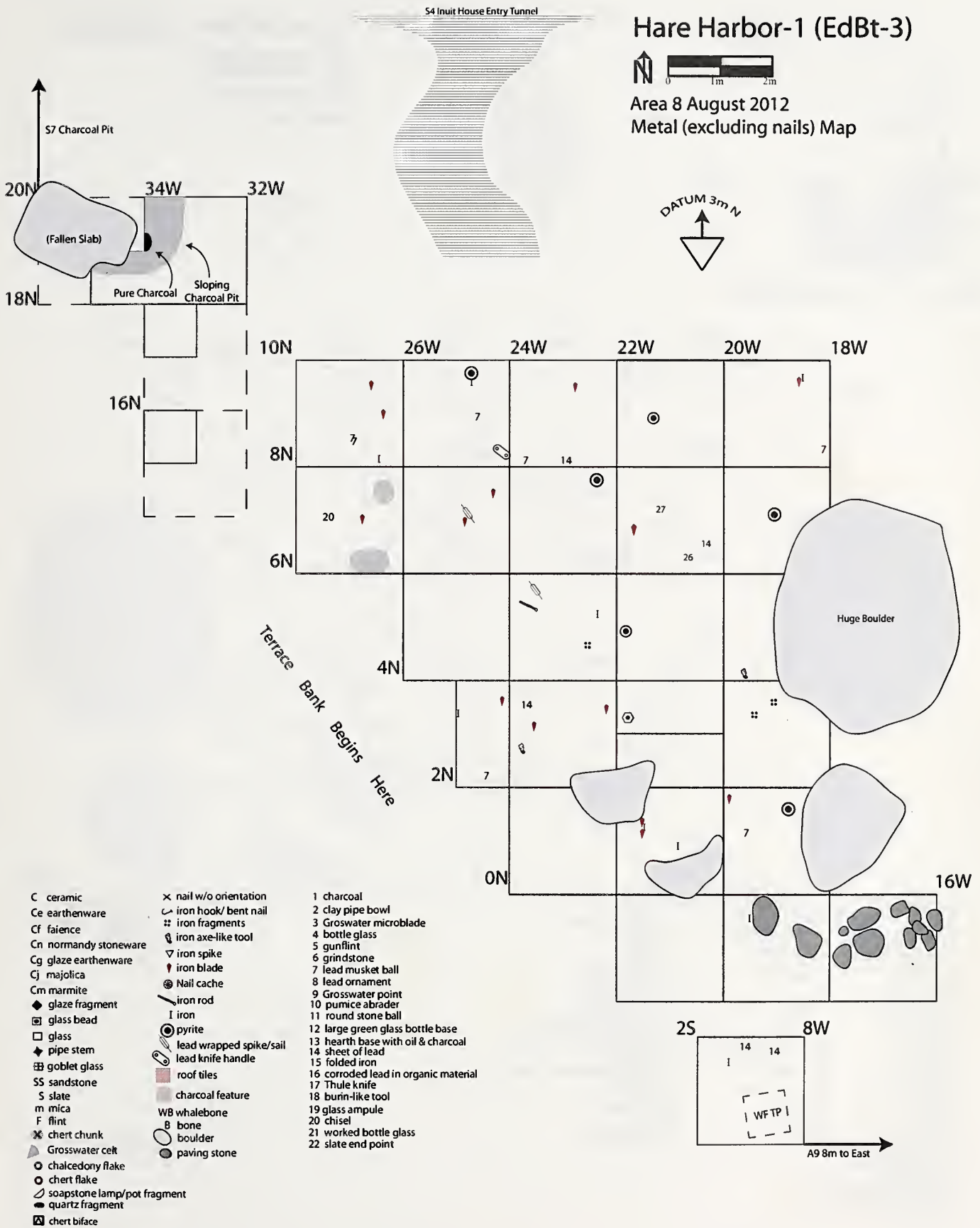


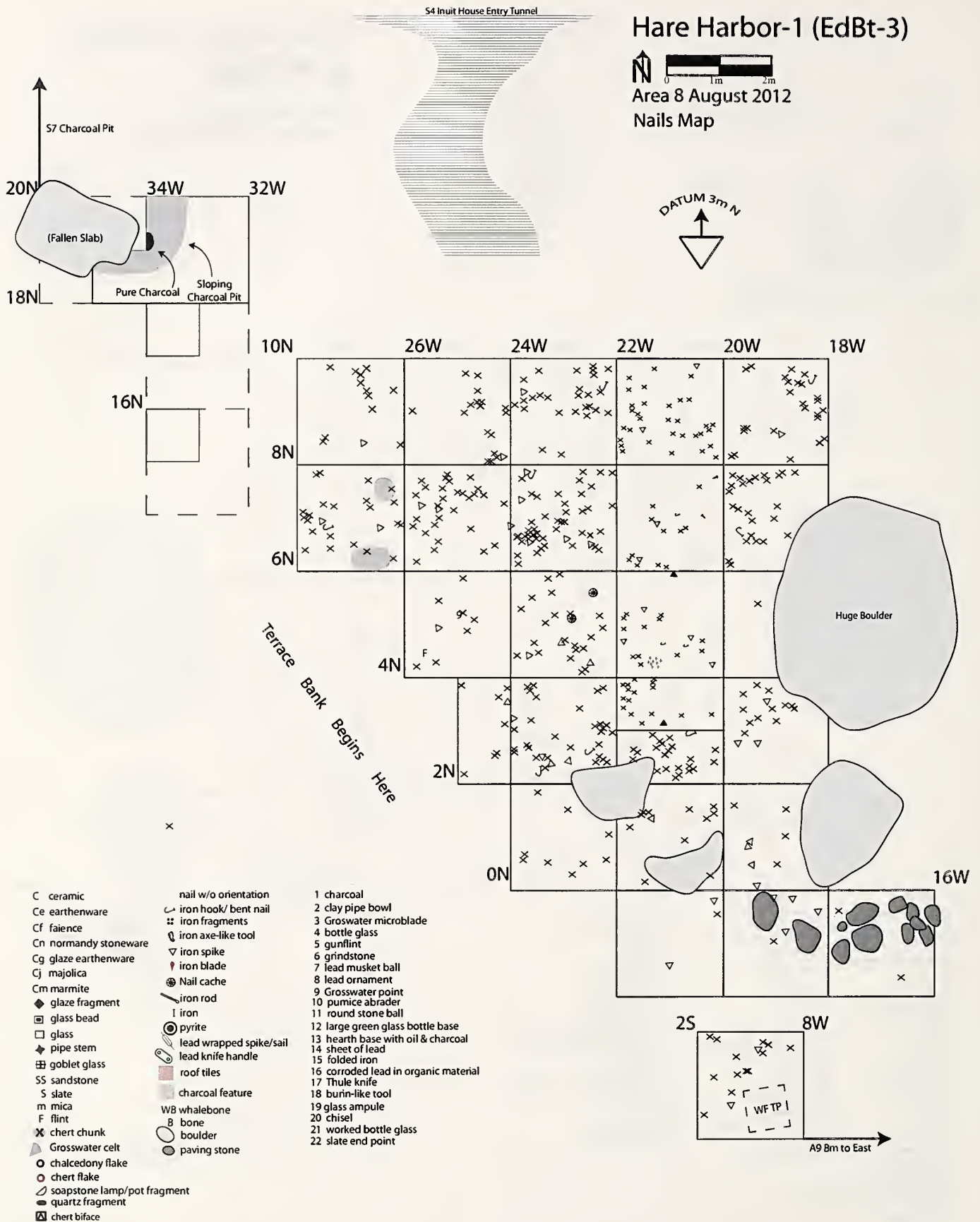
Area 8 August 2012
Overall Artifact Map

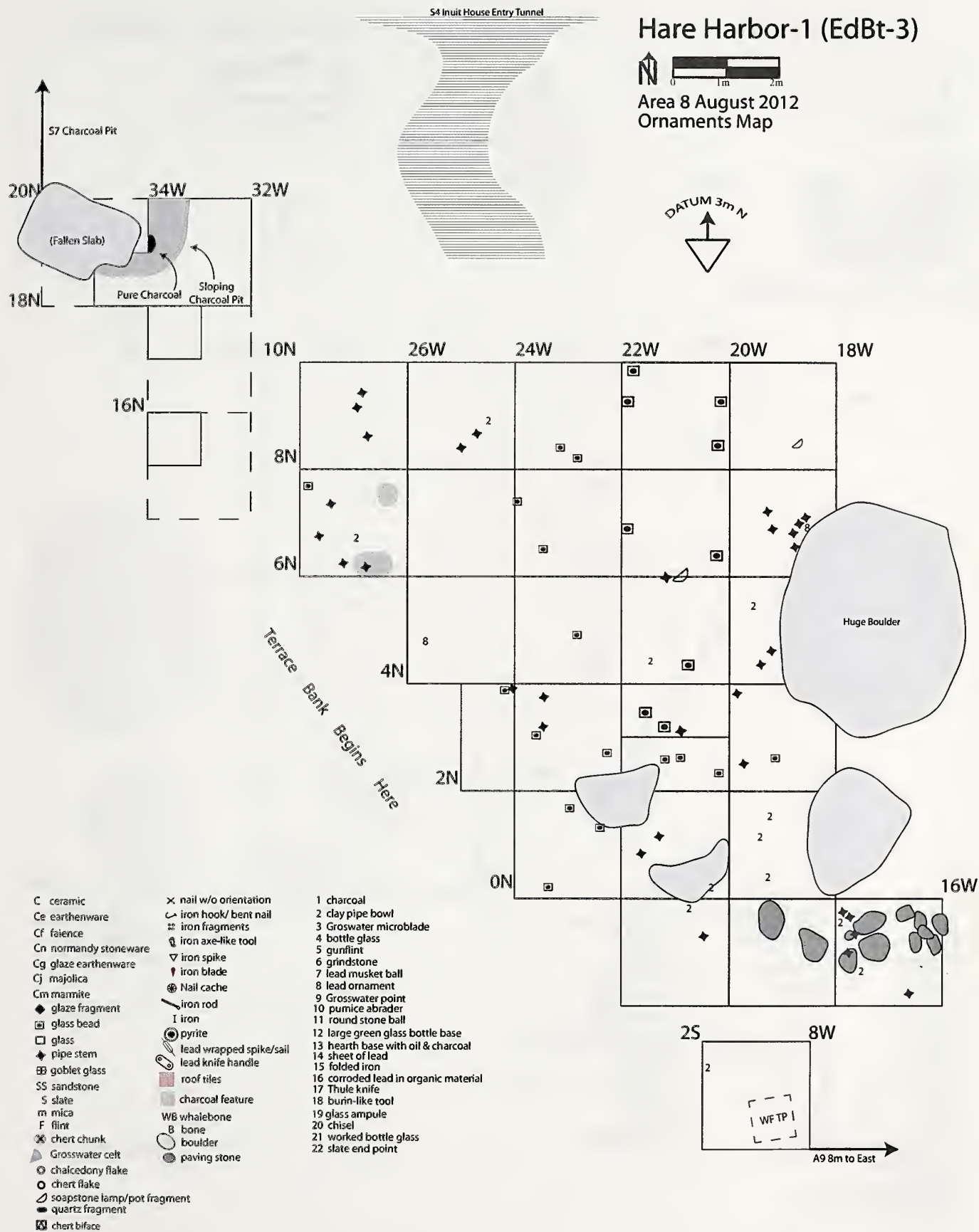


- | | | |
|-------------------------------|---------------------------|--------------------------------------|
| C ceramic | × nail w/o orientation | 1 charcoal |
| Ce earthenware | ⤵ iron hook/ bent nail | 2 clay pipe bowl |
| Cf faience | ⦿ iron fragments | 3 Groswater microblade |
| Cn normandy stoneware | ⤵ iron axe-like tool | 4 bottle glass |
| Cg glaze earthenware | ⤵ iron spike | 5 gunflint |
| Cj majolica | ⤵ iron blade | 6 grindstone |
| Cm marmite | ⦿ Nail cache | 7 lead musket ball |
| ◆ glaze fragment | ⤵ iron rod | 8 lead ornament |
| □ glass bead | ⦿ iron | 9 Grosswater point |
| □ glass | ⦿ pyrite | 10 pumice abrader |
| ◆ pipe stem | ⦿ lead wrapped spike/sail | 11 round stone ball |
| ⦿ goblet glass | ⦿ lead knife handle | 12 large green glass bottle base |
| SS sandstone | ⦿ roof tiles | 13 hearth base with oil & charcoal |
| S slate | ⦿ charcoal feature | 14 sheet of lead |
| m mica | W8 whalebone | 15 folded iron |
| F flint | ⦿ bone | 16 corroded lead in organic material |
| ⦿ chert chunk | ⦿ boulder | 17 Thule knife |
| ⦿ Grosswater celt | ⦿ paving stone | 18 burin-like tool |
| ⦿ chalcedony flake | | 19 glass ampule |
| ⦿ chert flake | | 20 chisel |
| ⦿ soapstone lamp/pot fragment | | 21 worked bottle glass |
| ⦿ quartz fragment | | 22 slate end point |
| ⦿ chert biface | | |





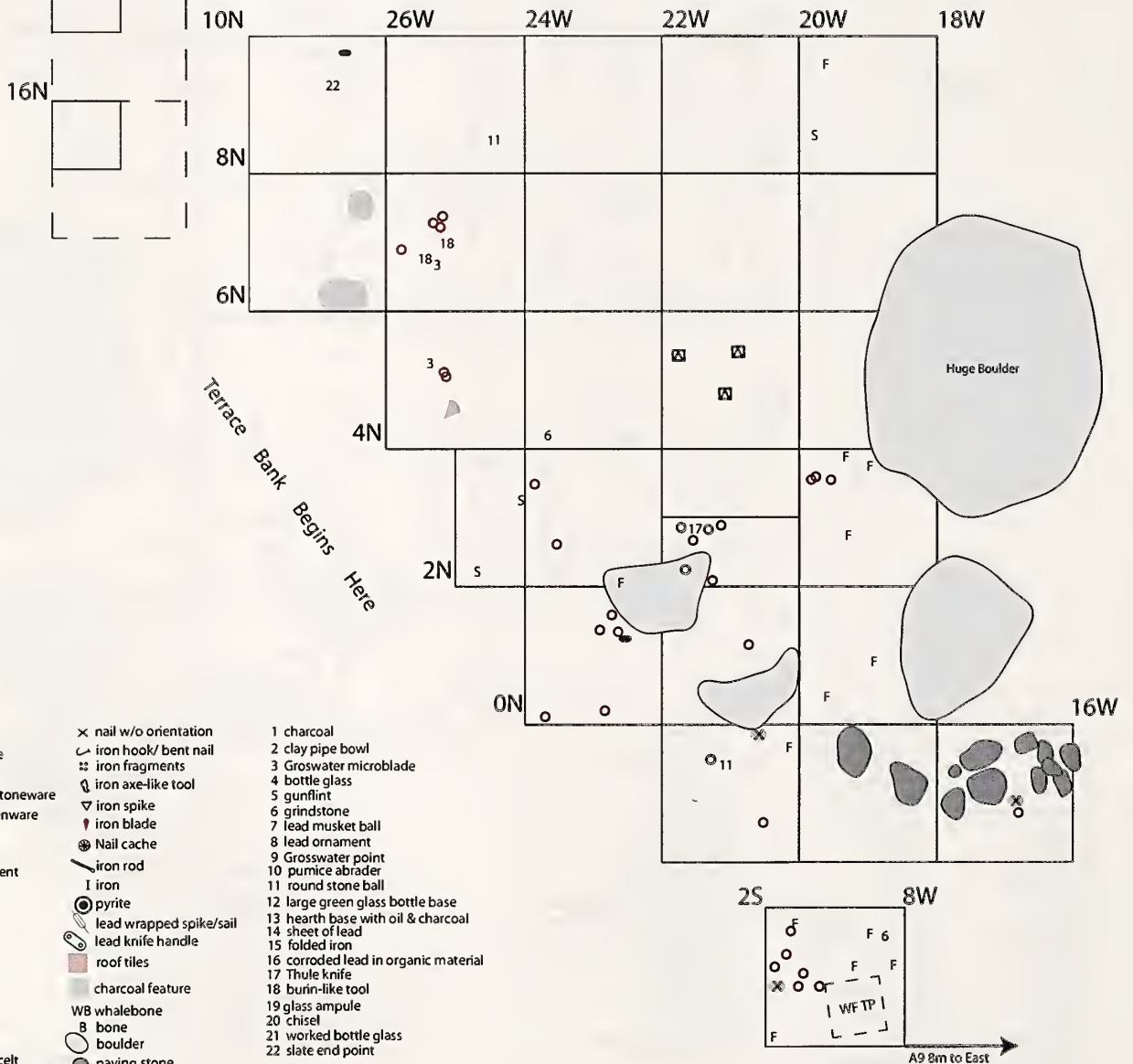
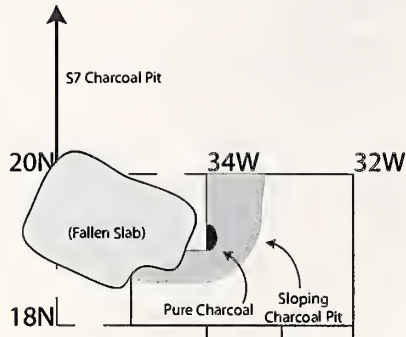




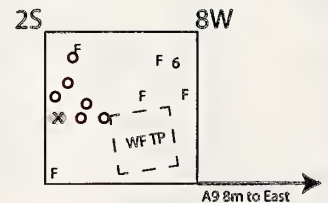
Hare Harbor-1 (EdBt-3)

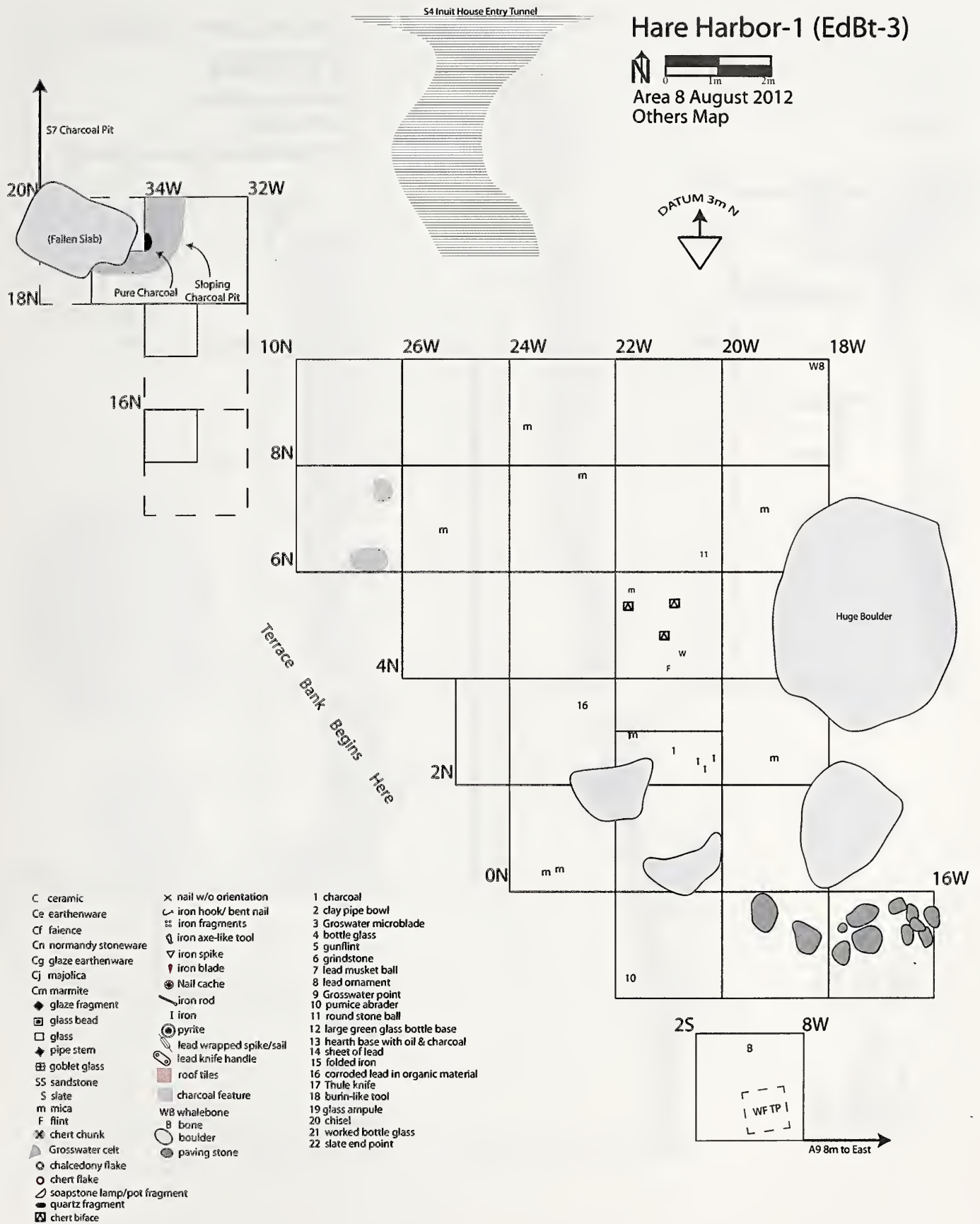


Area 8 August 2012
Lithic Map



- | | | |
|-------------------------------|---------------------------|--------------------------------------|
| C ceramic | ✕ nail w/o orientation | 1 charcoal |
| Ce earthenware | ✓ iron hook/ bent nail | 2 clay pipe bowl |
| Cf faience | ⚡ iron fragments | 3 Groswater microblade |
| Cn normandy stoneware | ⚡ iron axe-like tool | 4 bottle glass |
| Cg glaze earthenware | ▽ iron spike | 5 gunflint |
| Cj majolica | ♦ iron blade | 6 grindstone |
| Cm marmite | ⊙ Nail cache | 7 lead musket ball |
| ◆ glaze fragment | — iron rod | 8 lead ornament |
| □ glass bead | I iron | 9 Groswater point |
| □ glass | ⊙ pyrite | 10 pumice abrader |
| ◆ pipe stem | — lead wrapped spike/sail | 11 round stone ball |
| ⊞ goblet glass | — lead knife handle | 12 large green glass bottle base |
| SS sandstone | ■ roof tiles | 13 hearth base with oil & charcoal |
| S slate | ■ charcoal feature | 14 sheet of lead |
| m mica | WB whalebone | 15 folded iron |
| F flint | B bone | 16 corroded lead in organic material |
| ✕ chert chunk | ○ boulder | 17 Thule knife |
| ▲ Groswater celt | ● paving stone | 18 burin-like tool |
| ○ chalcedony flake | | 19 glass ampule |
| ○ chert flake | | 20 chisel |
| ○ soapstone lamp/pot fragment | | 21 worked bottle glass |
| ○ quartz fragment | | 22 slate end point |
| ✕ chert biface | | |






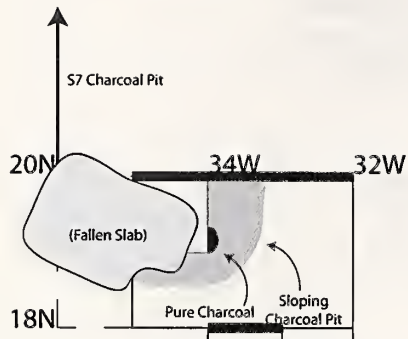
Hare Harbor-1 (EdBt-3)



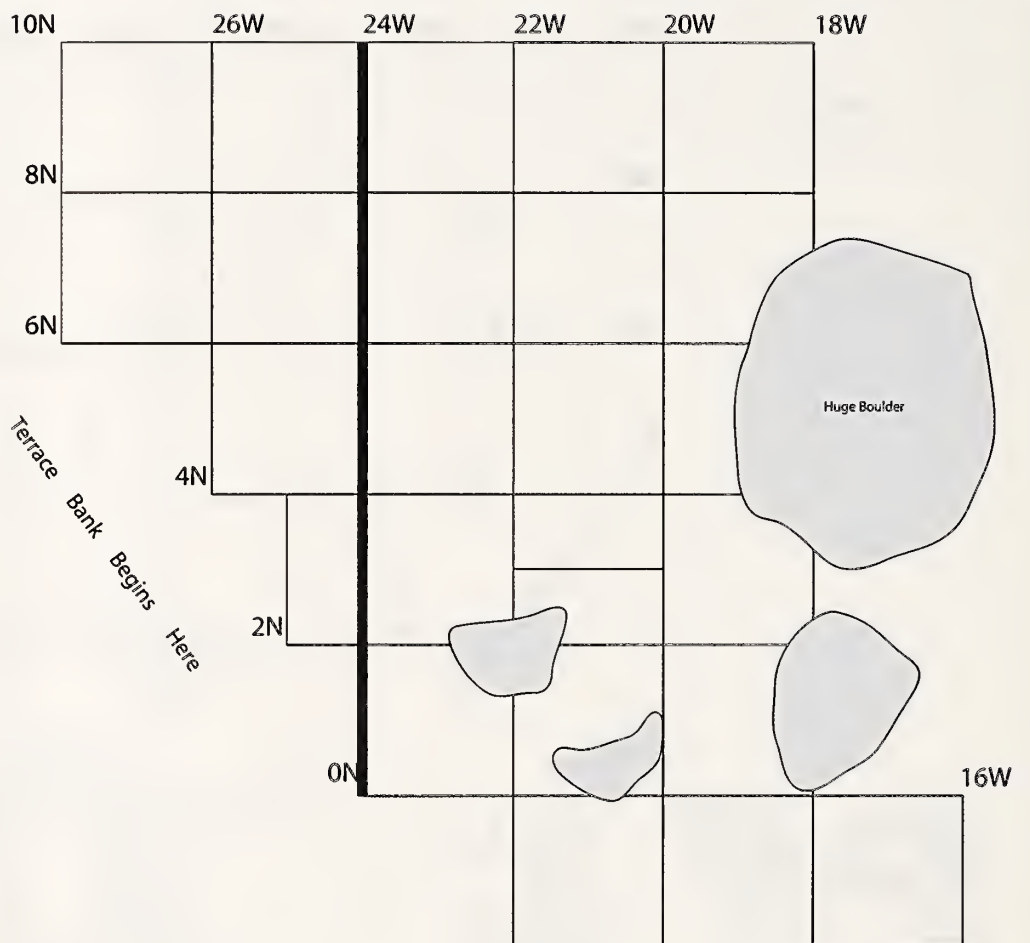
Area 8 August 2012

Profiles Map

 indicates profiled wall



Terrace Bank Begins Here

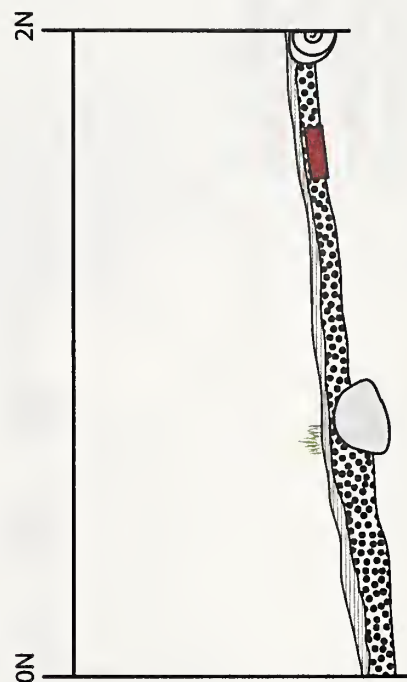
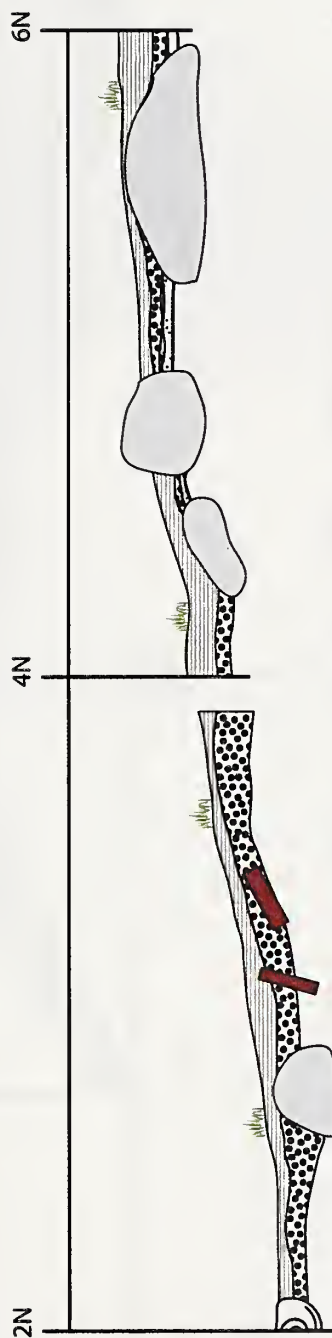
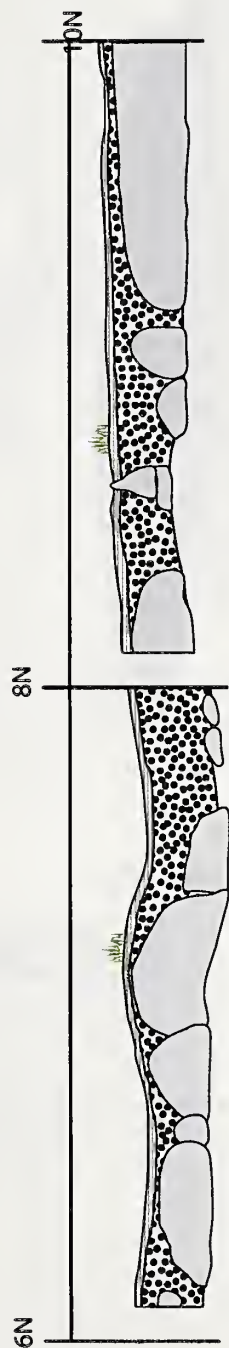


Hare Harbor-1 (EdBt-3)

Area 8 August 2012

24 West Profile

Baseline 216cm BD



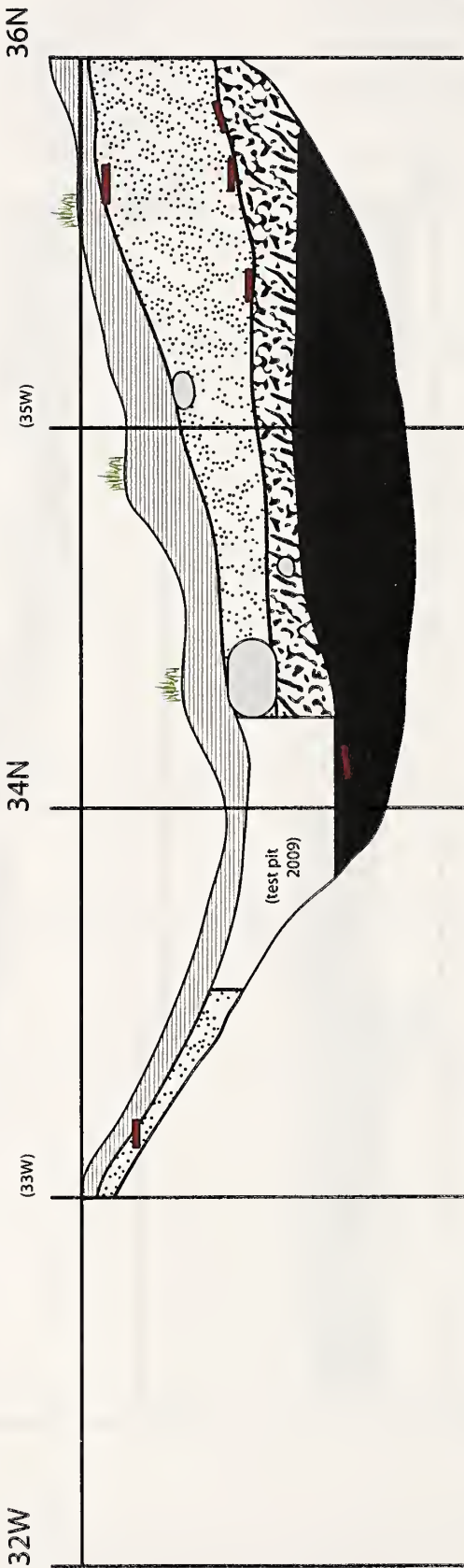
Hare Harbor-1 (EdBt-3)

Structure 7 August 2012

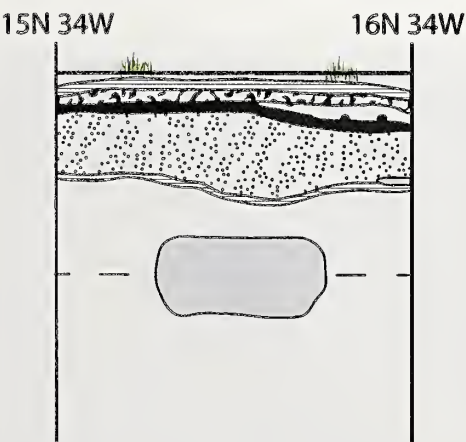
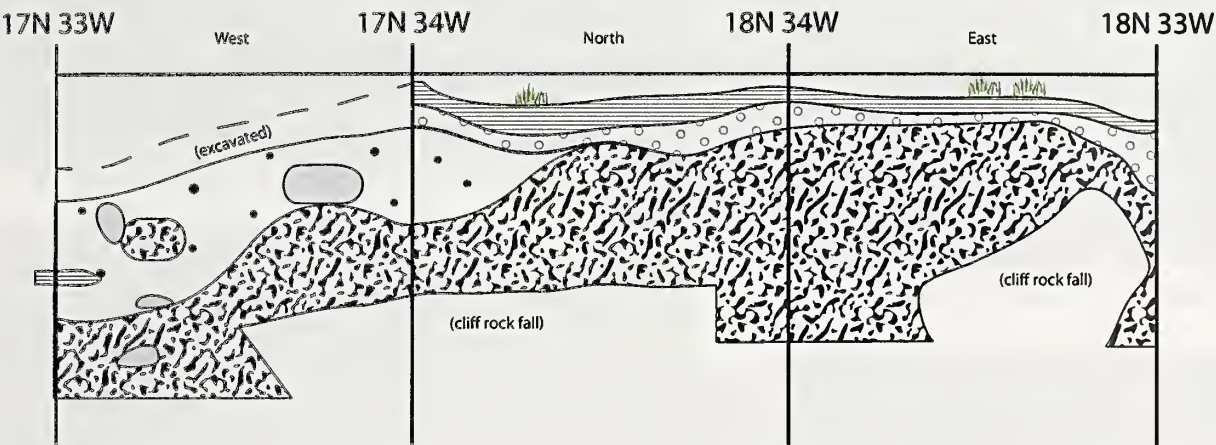
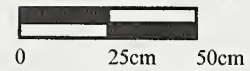
Charcoal Pit North Profile



- Turf
- Brown Soil
- Stratified charcoal soil
- Rock
- Roof Tile
- Pure Charcoal



Hare Harbor-1 (EdBt-3) Structure 7 August 2012 16/18N 32W Quarter Units



Hare Harbor - 1 Artifact Inventory



Fig 1.33: View of 0N 16W. Photo by W. Richard



Fig 1.35: View of 0N 18W. Photo by W. Richard



Fig 1.37: View of 0N 20W. Photo by W. Richard



Fig 1.34: Sample of material from 0N 16W. Photo by W. Richard



Fig 1.36: Sample of material from 0N 18W. Photo by W. Richard



Fig 1.38: View of 2N 18W. Photo by W. Richard



Fig 1.40: View of 2N 20W. Photo by W. Richard



Fig 1.42: View of 4N 20W. Photo by W. Richard



Fig 1.39: Sample of material from 2N 18W. Photo by W. Richard



Fig 1.41: Sample of material from 2N 20W. Photo by W. Richard



Fig 1.43: View of 4N 22W. Photo by W. Richard

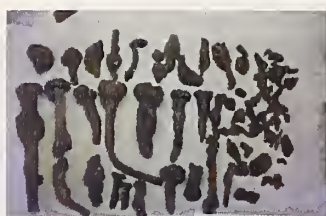


Fig 1.44: Nails from 4N 22W



Fig 1.45: Glazed ceramic from 4N 22W



Fig 1.46: Glass and stone-ware from 4N 22W



Fig 1.47: View of 4N 24W. Photo by W. Richard



Fig 1.48: Sample of material from 4N 24W. Photo by W. Richard



Fig 1.49: View of 6N 18 W. Photo by W. Richard



Fig 1.50: Sample of material from 6N 18W Photo by W. Richard



Fig 1.51: View of 6N 22W. Photo by W. Richard



Fig 1.52: Sample of material from 6N 22W. Photo by W. Richard



Fig 1.53: View of 6N 24W. Photo by W. Richard



Fig 1.54: Sample of material from 6N 24W. Photo by W. Richard



Fig 1.55: View of 8N 18W. Photo by W. Richard



Fig 1.56: Sample of material from 8N 18W. Photo by W. Richard



Fig 1.57: View of 8N 22W. Photo by W. Richard



Fig 1.58: Sample of material from 8N 22W. Photo by W. Richard



Fig 1.59: View of 8N 24W. Photo by W. Richard



Fig 1.60: Lead wrapped nail from 8N 24W. Photo by W. Richard.



Fig 1.61: View of 8N 26W. Photo by W. Richard



Fig 1.62: Sample of material from 8N 26W. Photo by W. Richard



Fig 1.63: View of 10N 18W. Photo by W. Richard

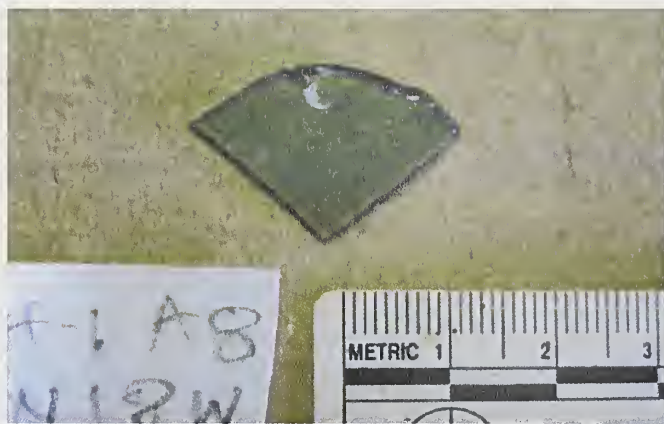


Fig 1.64: Worked window glass from 10N 18W. Photo by W. Richard



Fig 1.65: View of 10N 22W. Photo by W. Richard



Fig 1.66: Sample of material from 10N 22W



Fig 1.67: Iron from 10N 22W



Fig 1.68: View of 10N 24W. Photo by W. Richard

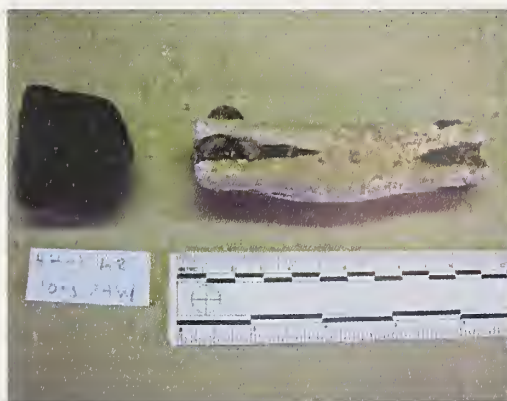


Fig 1.69: Lead knife handle and iron from 10N 24W. Photo by W. Richard

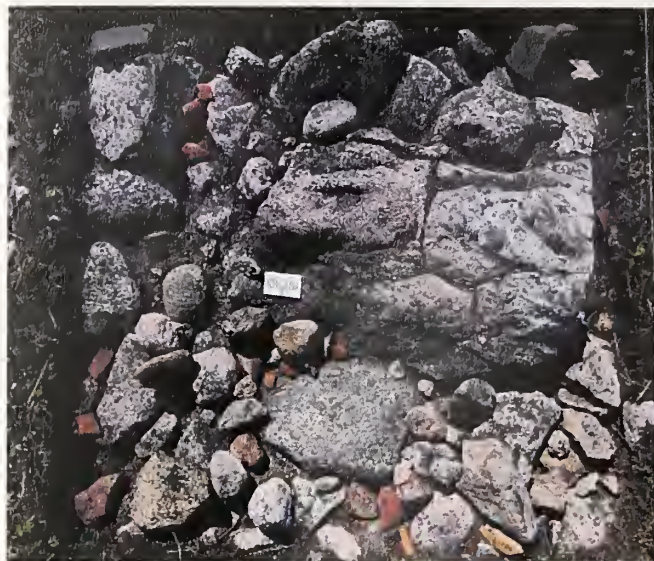


Fig 1.70: View of 10N 26W. Photo by W. Richard



Fig 1.71: Sample of material from 10N 26W. Photo by W. Richard



Fig 1.72: Quartz cobble and bottle-glass tool from 10N 26W. Photo by W. Richard



Fig 1.73: View of 16N 32W. Photo by W. Richard



Fig 1.74: View of 18N 32W. Photo by W. Richard

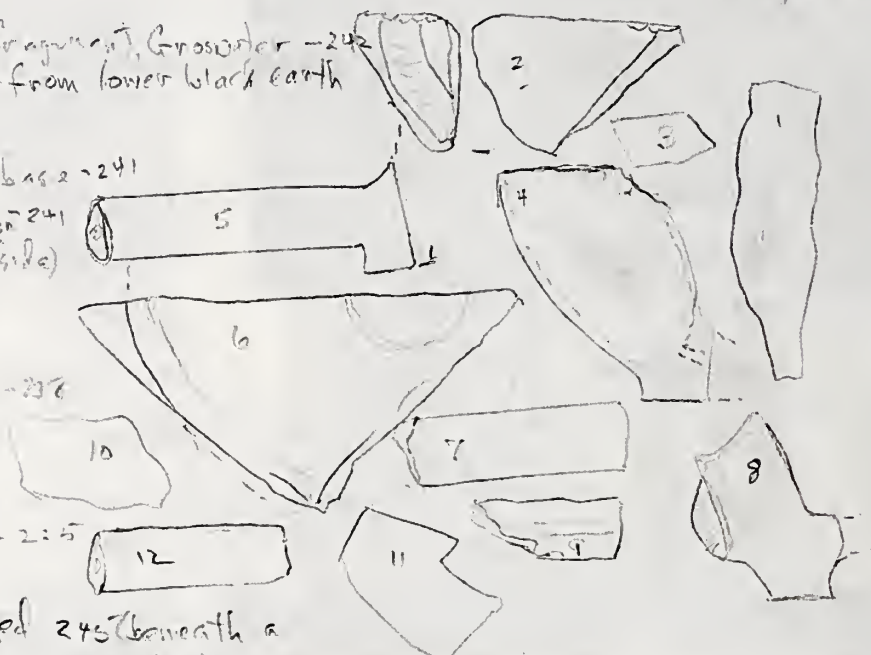


Fig 1.75: View of 20N 17-19W. Photo by W. Richard

Hare Harbor - 1 Artifact Drawings

114-1
✓ 0.5 (6w)
WF
7 August 2012

1. nail - 240
2. chert core ~~fragment~~ fragment, Grosvenor - 242
3. " flake - 242 - from lower black earth
4. pipe bowl - 243
5. pipe stem and bowl base - 241
6. N. stoneware jar bottom - 241
grey/brown (inside)
7. pipe stem - 239
8. pipe bowl - 239
9. pipe stem fragment - 238
10. nail - 239
11. thin glass tablet
fragment 2 - 2:5
12. pipe stem - 242
13. pipe stem, ornamented 245 (beneath a lower tile)



HH-1
 ✓ ON 19 W
 Richie
 8 Aug. 2012

1. aqua colored glass -271

2. green bottle glass -263

3. Nail -254 Iron strap or flat bar

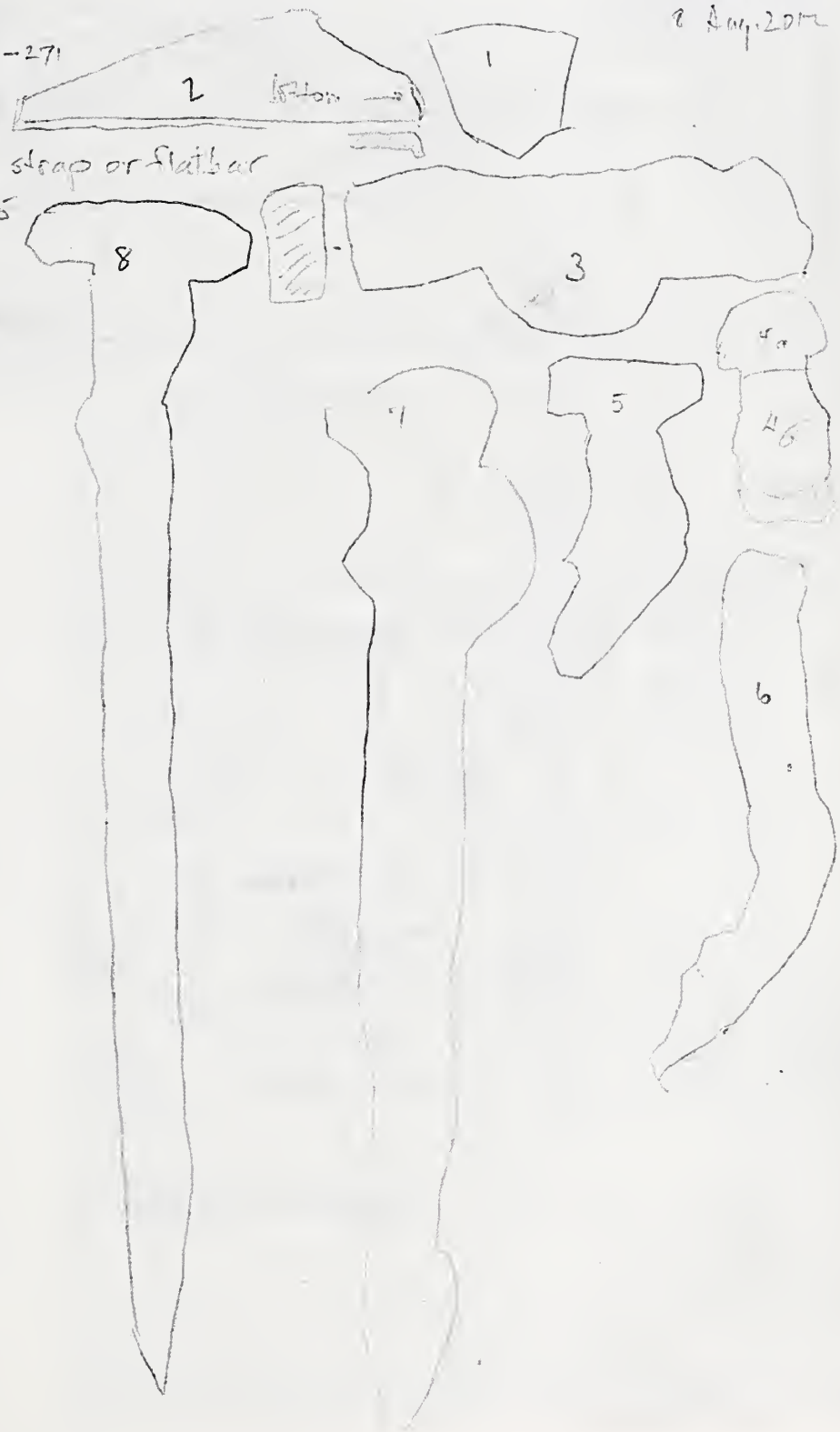
4. Nail 2 pcs -265

5. Spike -259

6. " -257

7. " -256

8. " -255



HH-1
ON 20th
✓ Richie Roy
5 Aug. 2012

1. flat iron pieces (2)
- 2 EW. plain
- 3 EW plain - 265
- 4 Groswater chert flake - 269 (chunk)
- 5 EW ceramic with punctates? - 275
- 6 EW " 260
- 7 pipe stem with 4 flange holes - 169
- 8 " bowl " decorated rim
- 9 spike - 250
- 10 chalcodony flake - 261
- 11 thin glass pane - 270, 100% surface
- 12 spike - 273
13. pipe stem - 277
- 14 round stone - 272
- 15 nail - 266 - 271
- 16 flint flake with cortex - -270
- 17 chert chunk - possible Groswater core - 274 frag.
- 18 EW - 276
- 19 abraded pumice sphere - 291
↳ to Smithsonian for analysis



29. Nail - 250 (2 pcs)

30 Spike - 255

31 EW - 252

32 pipe bowl - 254 (6 pcs)

33 fruit module - 246
(chauliay cortex)

34 EW - 252

35 - EW - marmite - 254
(14 marm)

36. EW - 256
quartz

37. EW - 257

38. EW - 257

39. glass - 243
(light green bit of glass)

40A) EW - 257

B) EW - 257

41 Flint - 253

42. EN - 252

43. EN - 252

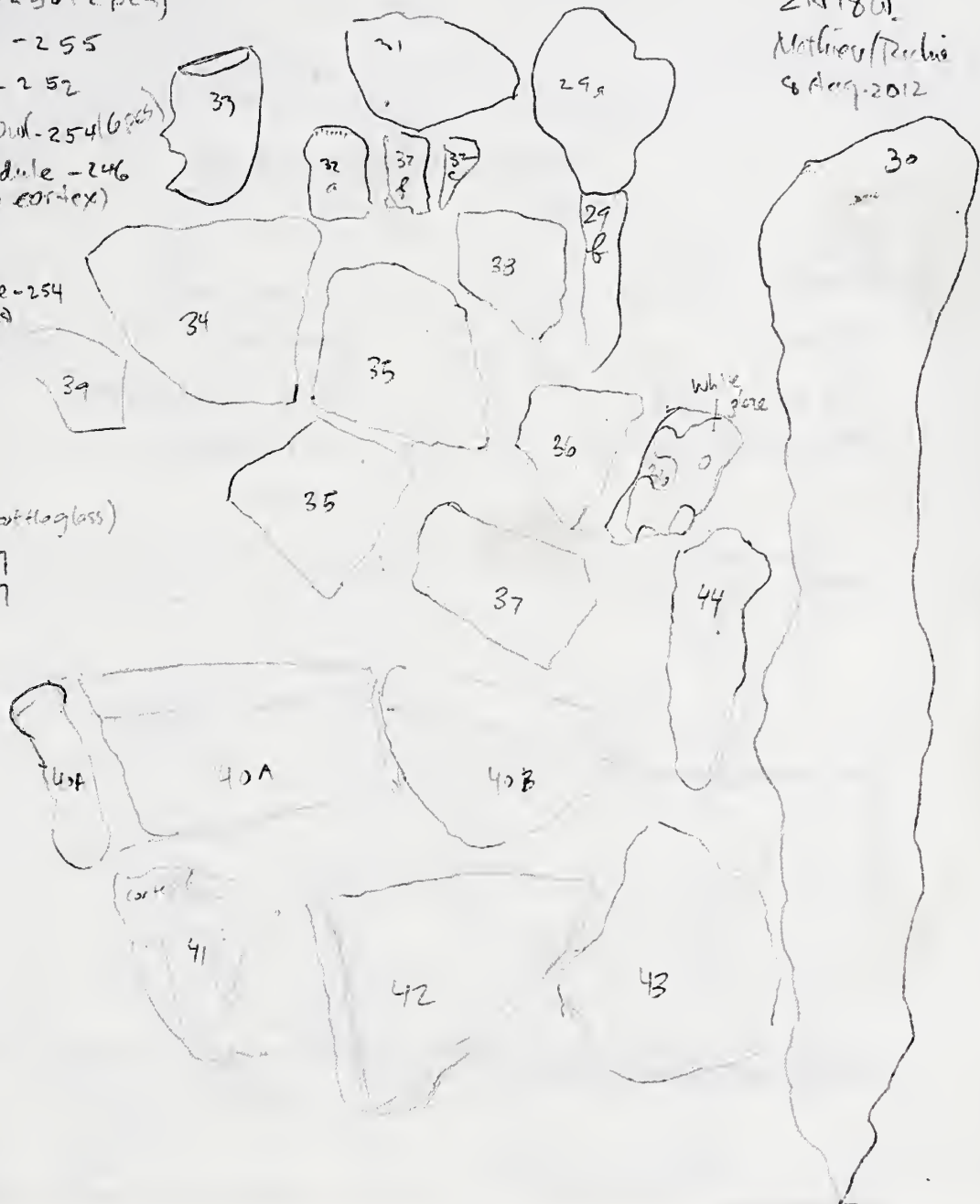
44 Nail - 252

HA-1

ZN 180

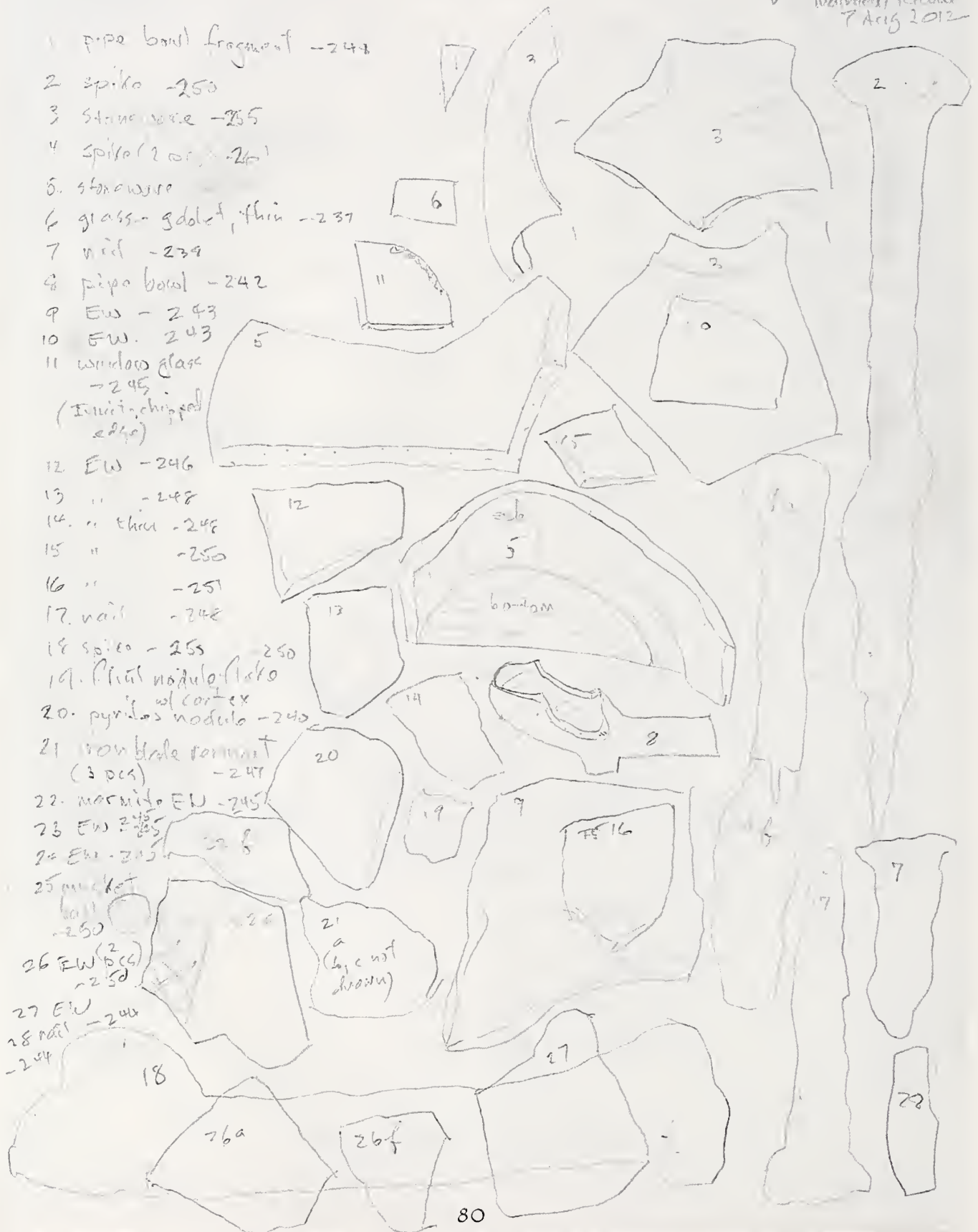
Mathieu/Reid

6 Aug. 2012



✓ AH-1
2M18W/
Matthew/Teresa
7 Aug 2012

- 1 pipe bowl fragment -242
- 2 spike -250
- 3 stone ware -255
- 4 spike (100) -241
5. stone ware
- 6 glass- goblet, thin -237
- 7 nail -239
- 8 pipe bowl -242
- 9 EW - 243
- 10 EW. 243
- 11 window glass
-245
(thin, chipped
edge)
- 12 EW -246
- 13 " -248
14. " thin -248
- 15 " -250
- 16 " -251
17. nail -248
- 18 spike -255
19. flint nodule flake
w/ cortex
20. pyrites nodule -245
- 21 non blade remnant
(3 pcs) -247
22. mormite EW -245
- 23 EW 245
- 24 EW -245
- 25 bucket
-250
- 26 EW (2
pcs) -250
- 27 EW -244
- 28 nail -244



44-1
2N 20W
Christine J
5 Aug.

27 SW rim shard

28 SW - 260 spall

29 SW - 260

30 glaze, white - 257
(cup interior?)

31 SW frag 267

32 blue/white glaze 257

33 3 pcs EW - 252
with white glaze on both sides

34 EW rim shard ²⁵⁴

35 EW - 254

36 white glaze - 255

37 EW plain - 255

38 " " - 255

39 iron pot fragment

40 knife blade fragment
Sits #21



41 nail - 265

42 " - 265

43 EW - 268

44 glaze - 260 white, curved surface

45 EW, white glaze - 256 part of #9

46 @ glaze white + black - 267 like #25

47 EW - 262

48 Nail - 258

49 EW - 258

50 EW - 260

51 EW - 265

52 EW - 260

rim shard

53 EW - 260

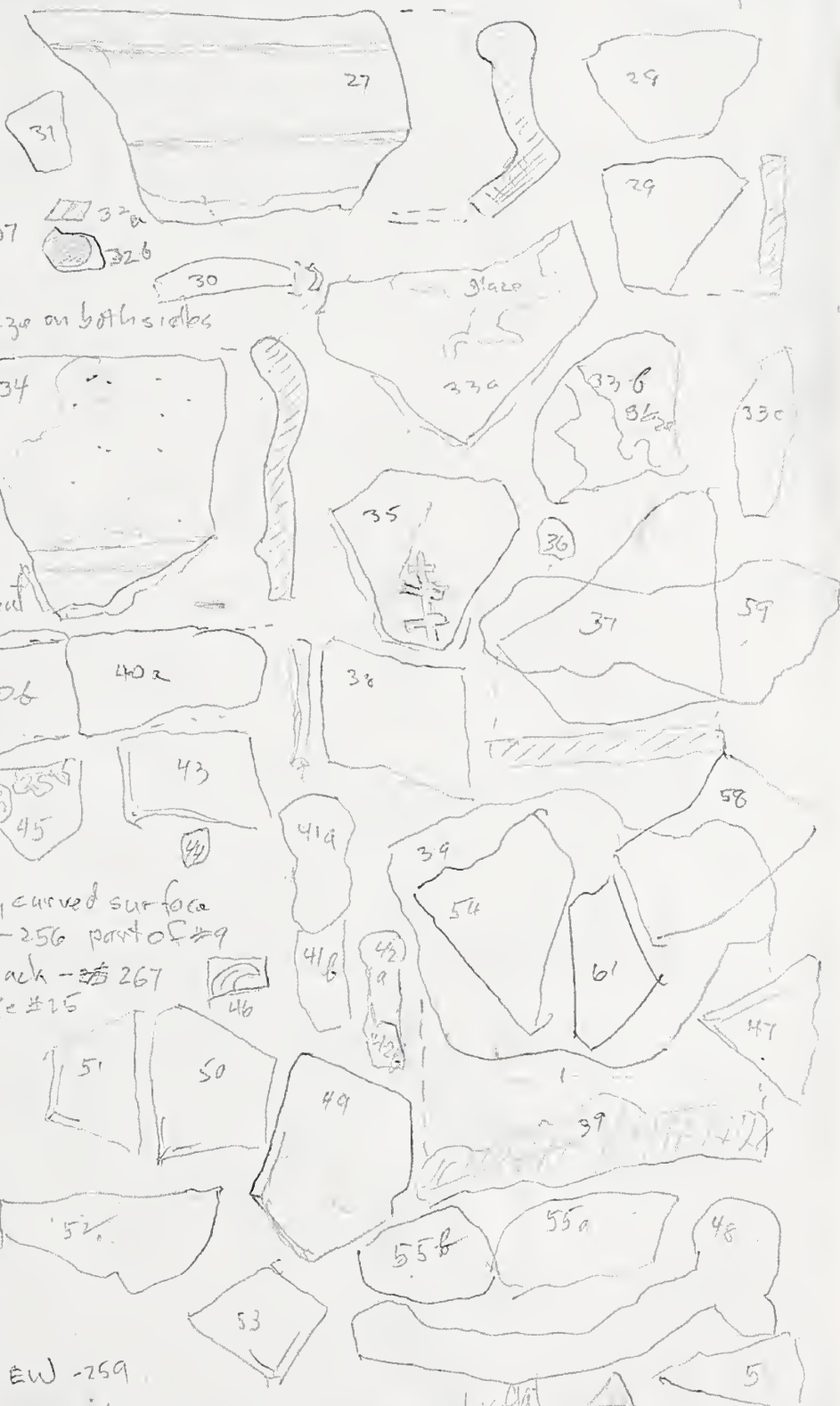
54 EW - 256

55 2 pieces EW - 264 56 EW - 259

57 white glaze - 259

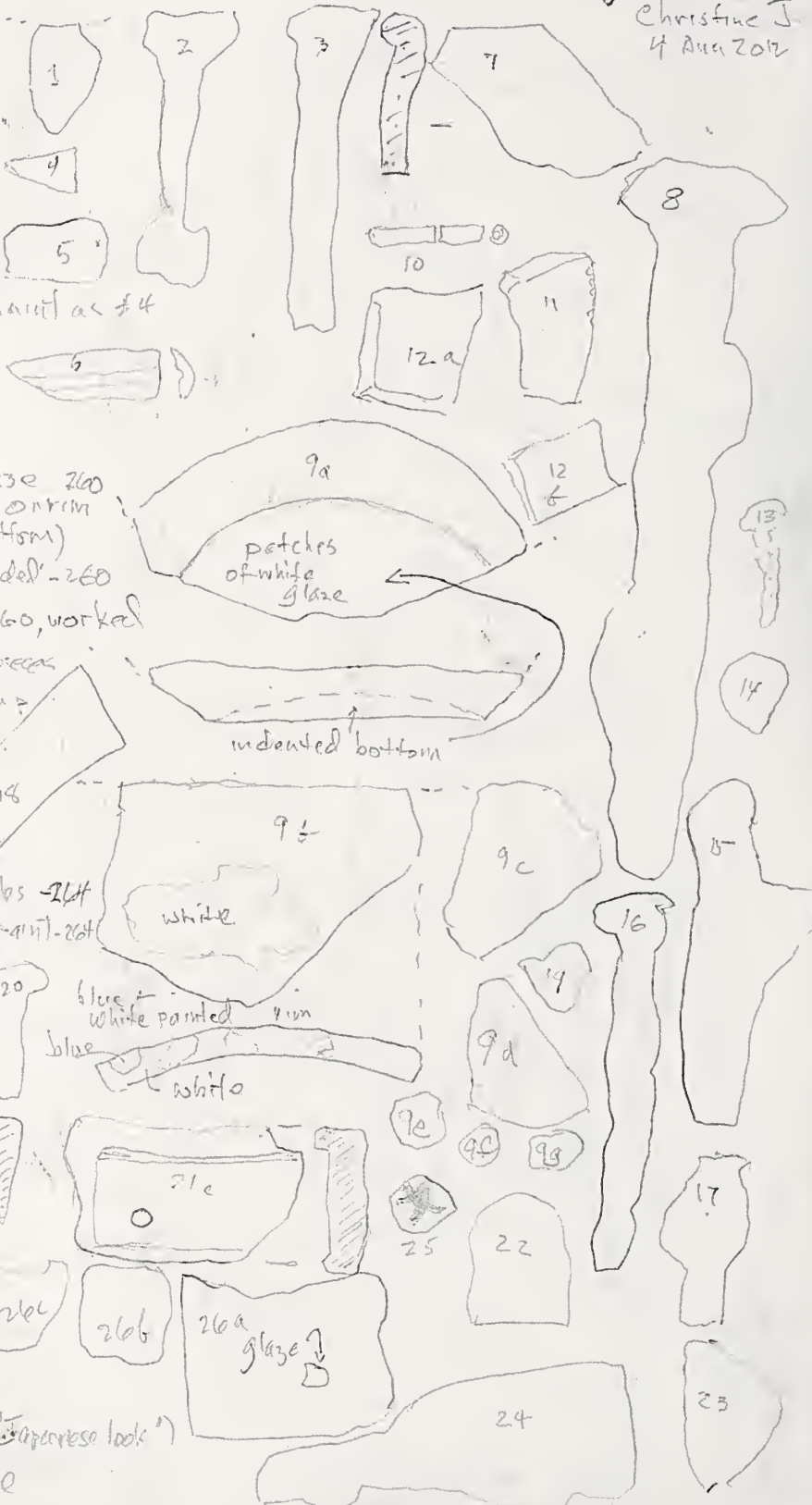
58 EW - 256

59 nail - 256 60 EW 2 pc - 269 61 glaze - 270 57



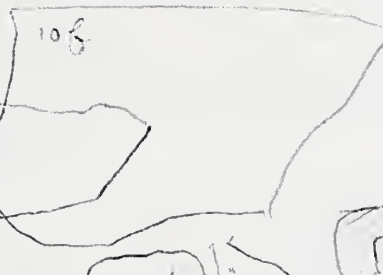
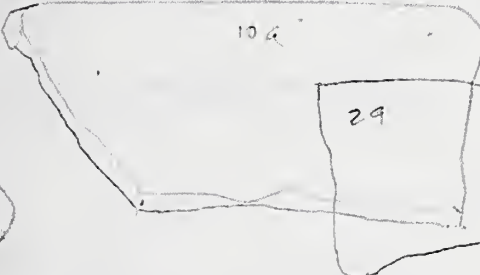
✓ 2N 20W
Christine J.
4 Aug 2012

- 1 pipe bowl -260
- 2 nail -260
- 3 " -270
- 4 glaze -267
with green + brown
painted decoration
5. EW white glaze 266
with same green paint as #4
- 6 pipe stem 266
- 7 EW rim shard -256
- 8 spike -260
- 9 6 pieces EW white glaze 260
with blue stripes on rim
(one is rim, one is bottom)
10. pipe stem 2 pieces, eroded -260
11. flint/chert flake, -260, worked
12. plain EW -260 2 pieces
- 13 nail -260 broken up
- 14 glaz-d EW -258
- 15 nail -262
- 16 " -257
- 17 " -257
18. flat bluish glass w/bubbles -264
- 19 SW white glaze w/blue paint -267
20. nail -268
- 21 Knife handle and
blade fragments 267
(3 pcs)
22. iron pipe -267
- 23 EW -263
- 24 nail -269
- 25 glaze brown paint -
on white glaze -267 (Japanese look?)
- 26 3 pcs EW a bit of glaze
remaining



1141
✓ 3N 22W
Christina J.
7 August
2011

1. N. stoneware -282
2 ~~3~~ EW -280
3 Nail -272-275
4. EW -279
5 blue seal bead -279
6 nail -281
7. EW -281
8. Nail 3 pieces -281
9 1/2 blue seal bead -281
10. 2 iron EW. -299 rim sherds



11. green glass 1/2 square bottle corner -287

12. EW -287

- 13 nail -287

14. EW -277

15. nail -292

16. EW (chord) -296

- 17 nail -272

- 18 nail -297

- 19 chert flake -298

- 20 EW -295 with round spots / glaze

- 21 Worked piece of quartz

- 22 EW marinite with check-stamped motif. -292

- 23 green glass -280 corner piece

- 24 marinite with checked motif.

- 25 nail -291

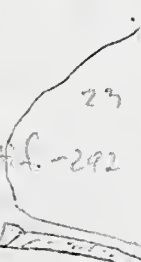
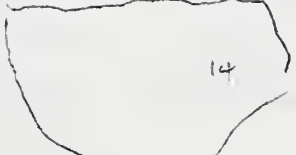
- 26 nail -298

- 27 EW marinite -299

- 28 nail -299

~~29 EW~~

- 29 EW unworked -299

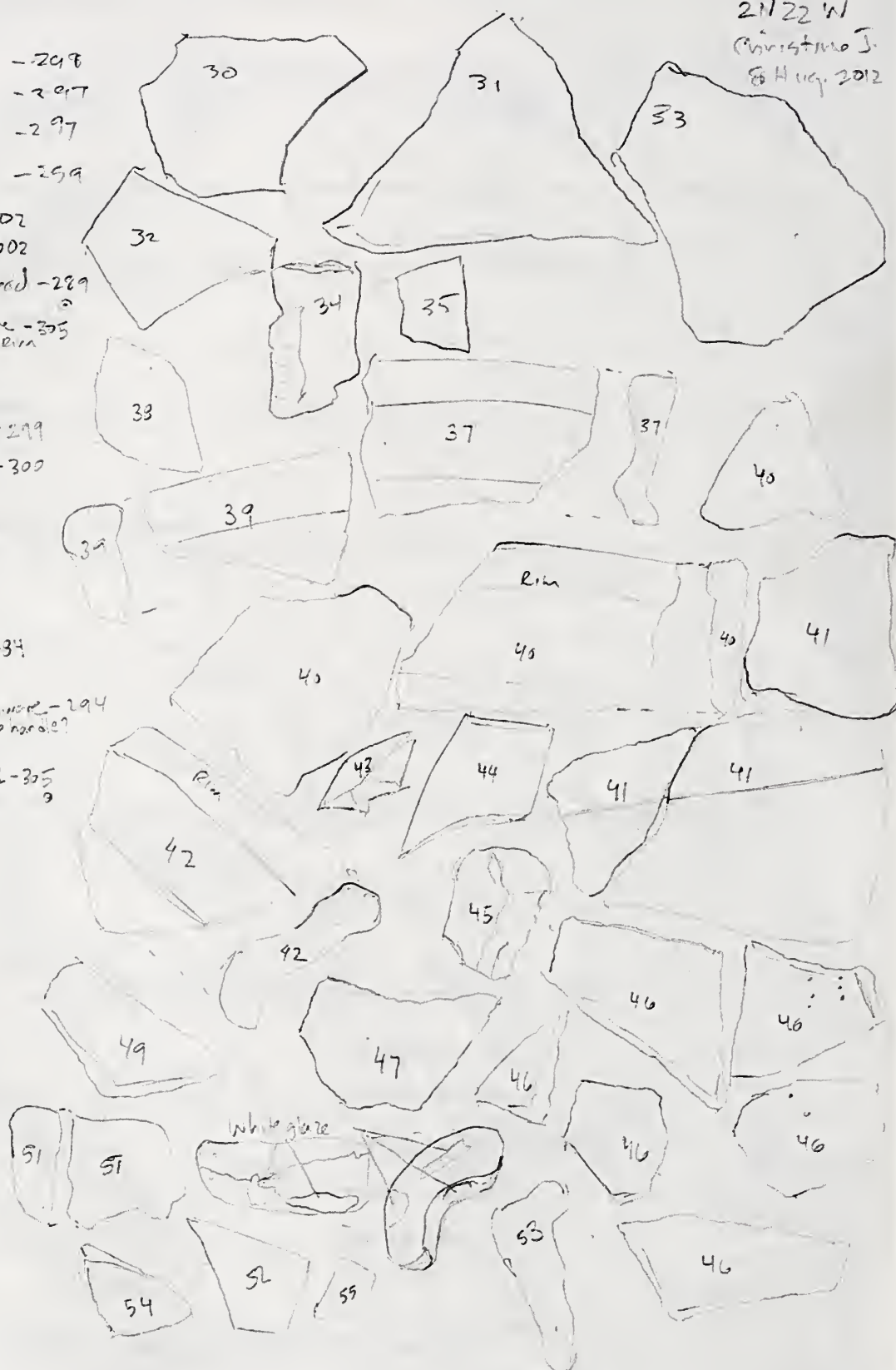


smudged
images



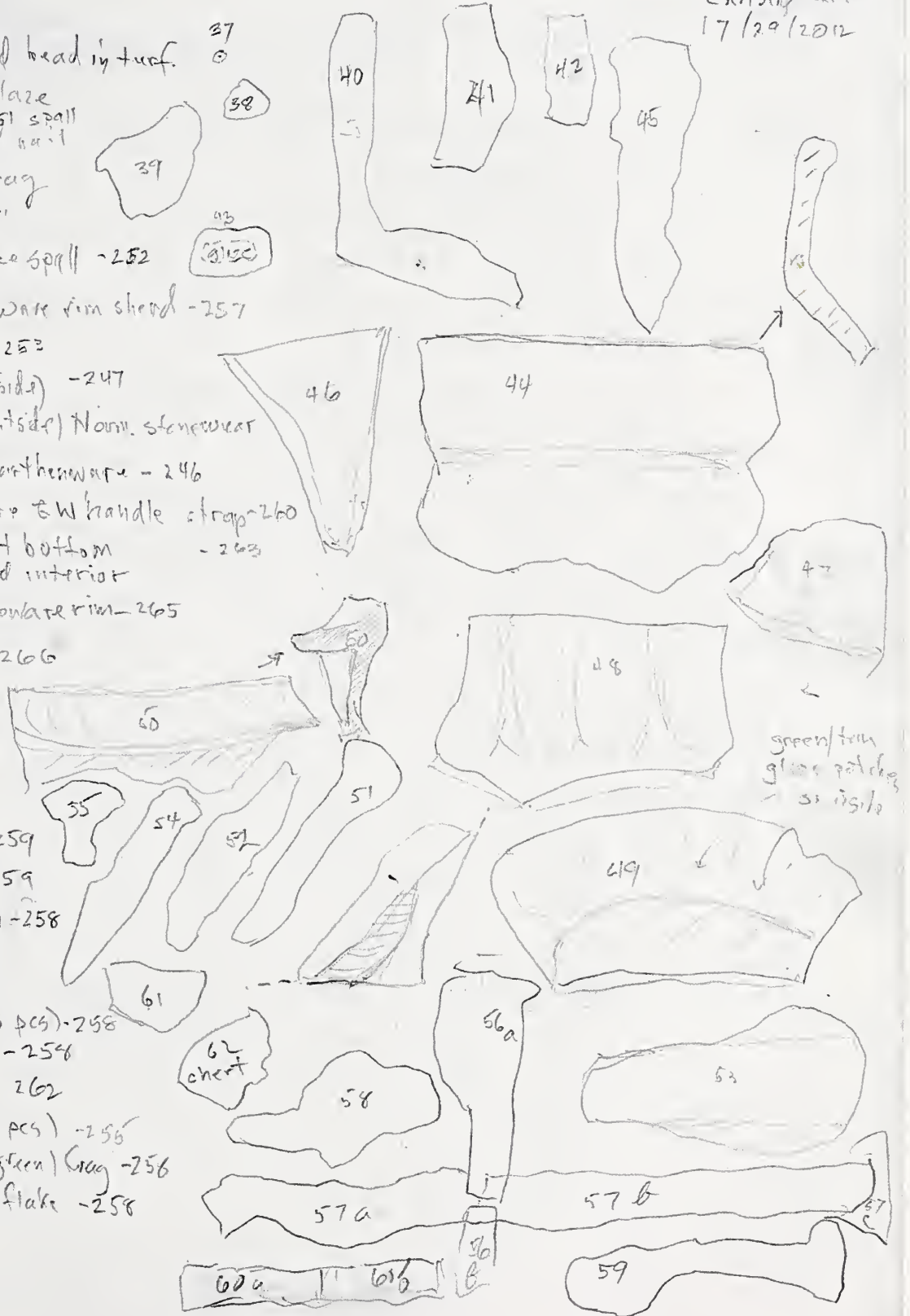
HH -
21122 W
Christina J.
28 Aug. 2012

- 30 EW - 298
- 31 EW - 297
- 32 stone ware - 297
- 33 BN - 299
- 34 chest - 302
- 35 EW - 302
- 36 blue seed head - 299
- 37 earthenware - 305
Rim
- 38 EW - 305
- 39 EW - 293 rim
- 40 EW - group of 3 - 299
- 41 EW - group of 3 - 300
- 42 EW - 294
- 43 chest - 295
- 44 glass - 295
- 45 chest - 290
- 46 EW - group - 294
- 47 EW - 292
- 48 glazed earthenware - 294
cup handle?
- 49. EN - 290
- 50. blue seed head - 305
- 51 EW - 295
Rim
- 52 Glass - 303
- 53 Nail - 303
- 54 chest - 303
- 55 glass - 303



FH-1
 ✓ 3N 20 W
 Christy Seere
 17/20/2012

- 37 blue seed head in turf.
 38. white glaze
 39. Nail - 151 spill
 40 clenched nail
 41. Nail Frag
 42 " "
 43 blue glaze spill - 252
 44 earthenware rim sherd - 257
 45 nail - 253
 46 grey (inside) - 247
 brown (outside) Norm. stoneware
 47 brown earthenware - 246
 48 marmite & W handle strap - 260
 49 EW pot bottom
 glazed interior - 263
 50 N. Stoneware rim - 265
 51 Nail - 266
 52 Nail - 266
 53 Nail - 266
 54 Nail - 259
 55. " - 259
 56 " (2 pcs) - 258
 57 Nail (3 pcs) - 258
 58 " - 258
 59 " - 262
 60 " (2 pcs) - 256
 61 glass (green) frag - 256
 62 chert flake - 258



H4-1
 ✓ 3N 20W
 Christine L
 7/30/2012

63 chalcobony flake (fair)

64 brown EW - 268
 rim shard

65a ground banded grey slate flensing blade,
 Thule culture, with drilled fastening
 or pinning hole, mid-section frag.
 Very thin X-section! (copying a
 metal blade perhaps)

Standing vertically between 2 pieces of RT.
 top was at -268, bottom at 271 cm

65 b Bottom fragment (drilled) of banded
 grey slate Thule flensing knife.
 (grinding striations on reverse side).
 This piece was lying flat under 2 pieces
 of roof tile at -271.

66 Nail (2 pieces) - 271

67 fan chert piece - 271

68 Nail - 261

69 " - 261

70 bluesand - 261

71 bead - 260

72 " " - 260

73 Nail (4 pieces) - 260

74 " - 260

75 EW ceramic - 259

76 EW " - 255

77 Nail - 255

78 white glaze EW fragment - 262

79 EW ceramic - 262

80 nail - 257

81 white glaze - 256

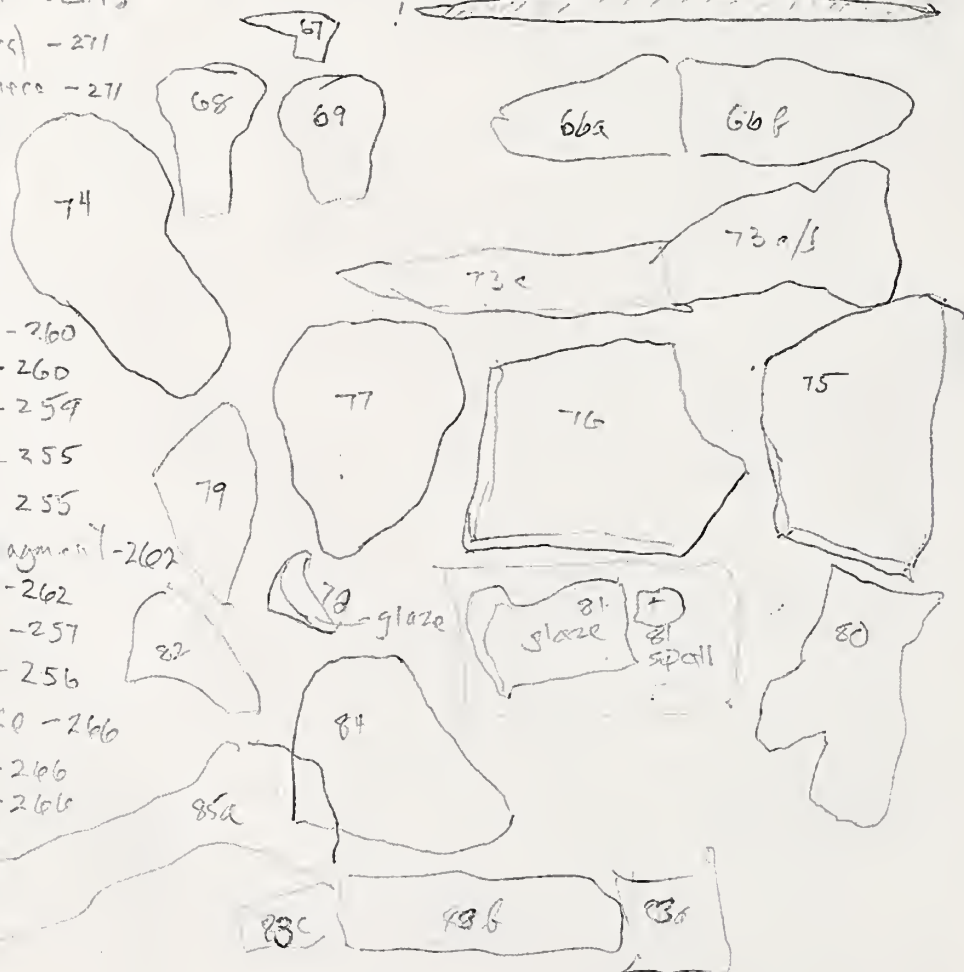
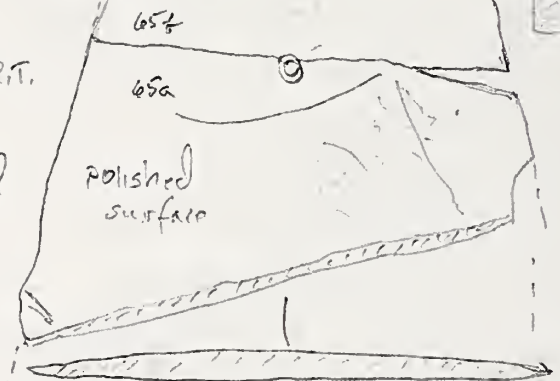
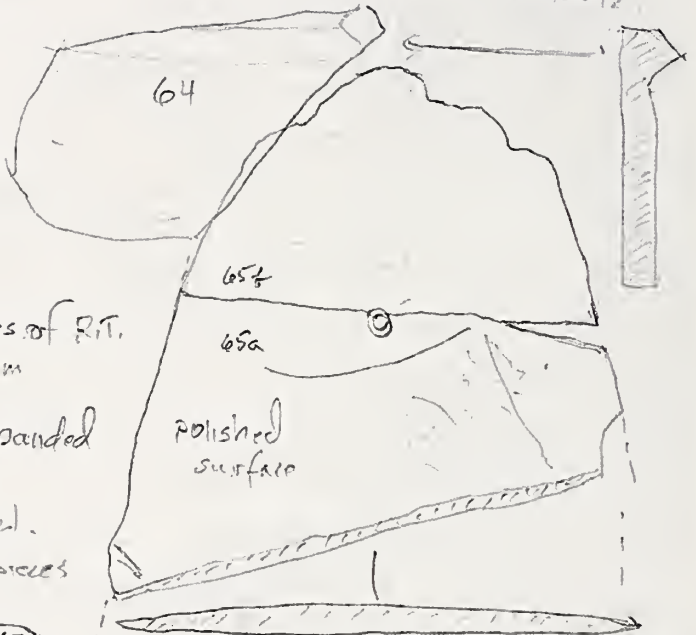
82 chalcobony flake - 266

83 Nail (2 pcs) - 266

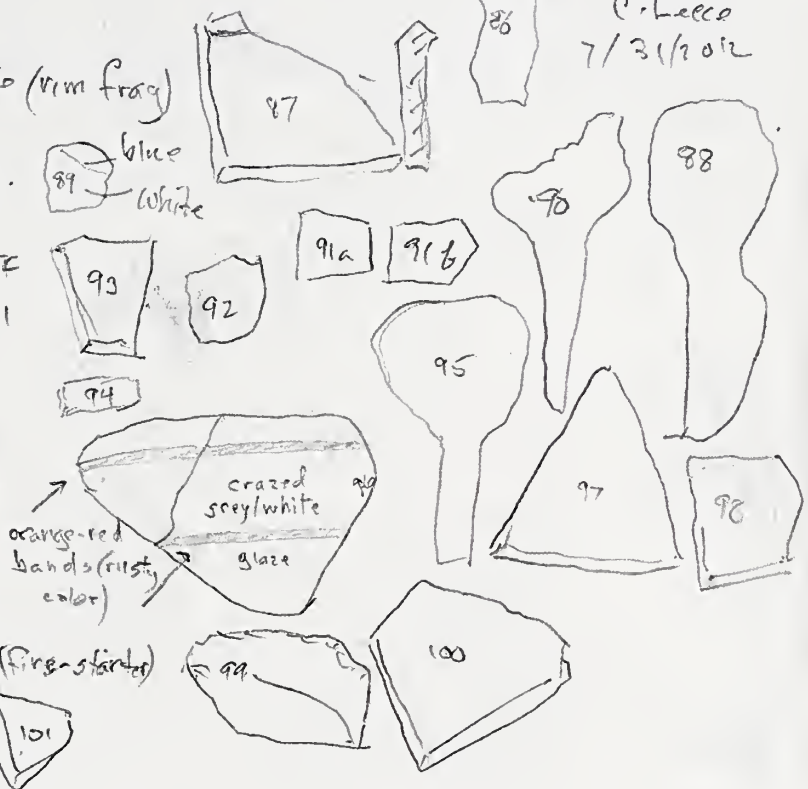
84 EW ceramic - 266

85 nail - 258

2 pcs



86. nail - 285
 87. undecorated EW - 286 (rim frag)
 88. nail - 285
 89. white/blue glazed frag.
 90. nail - 254
 91. 2 pcs white glaze - 254
 92. EW ceramic - 261
 93. " " - 262
 94. chert spall, grey - 270
 95. nail - 270
 96. Faience ceramic - 270
 (plain on one side)
 97. EW pottery plain - 271
 98. " " - 273
 99. chalcidony flake - 263 (fire-starter)
 100. Plain EW - 255
 101. Plain EW - 265



H(f-1
 3N 20W
 C. Lecco
 7/31/2012

424-1
 ✓ #N 18W
 Sacau
 7 August

1. pipe stem (2 pcs) -251
2. chert flake -251
3. Nail -255 (2 pcs)
4. nail (2 pcs) -251
5. spike (2 pcs) -251
6. ~~with~~ glass -244
7. nail -242
8. Nail -250
9. nail -245
10. nail -247
11. " -247 (many pcs)
12. " -247 (2 pcs)
13. Chert flake (2 pcs) -249
14. glass -240
 light blue window?

15. Cluster of iron pieces -240

16. E.W. -240

17. nail -223
 (3 pcs)

18. nail -229

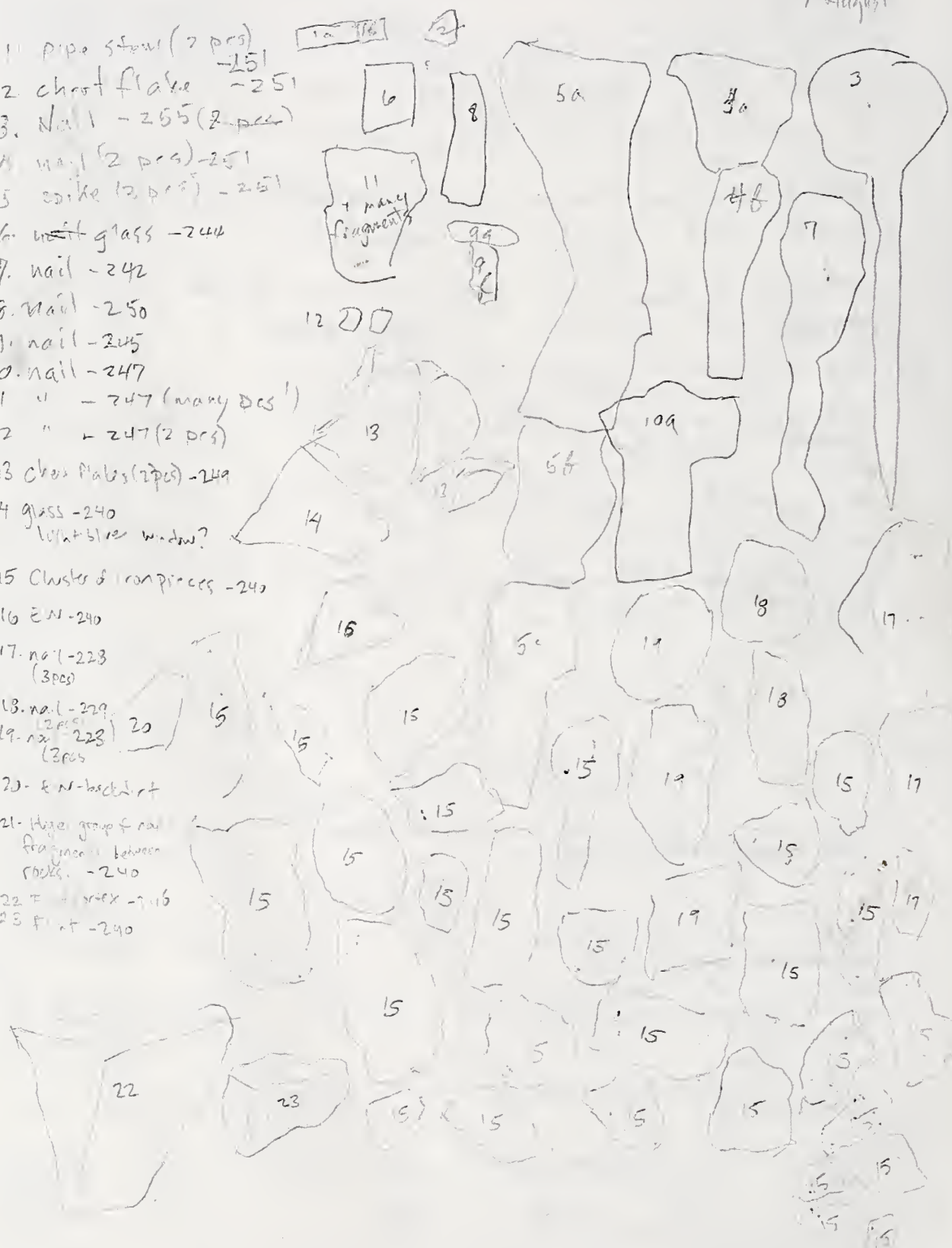
19. nail -228
 (3 pcs)

20. E.W. -back of rt

21. Heger group of nail
 fragments between
 rocks. -240

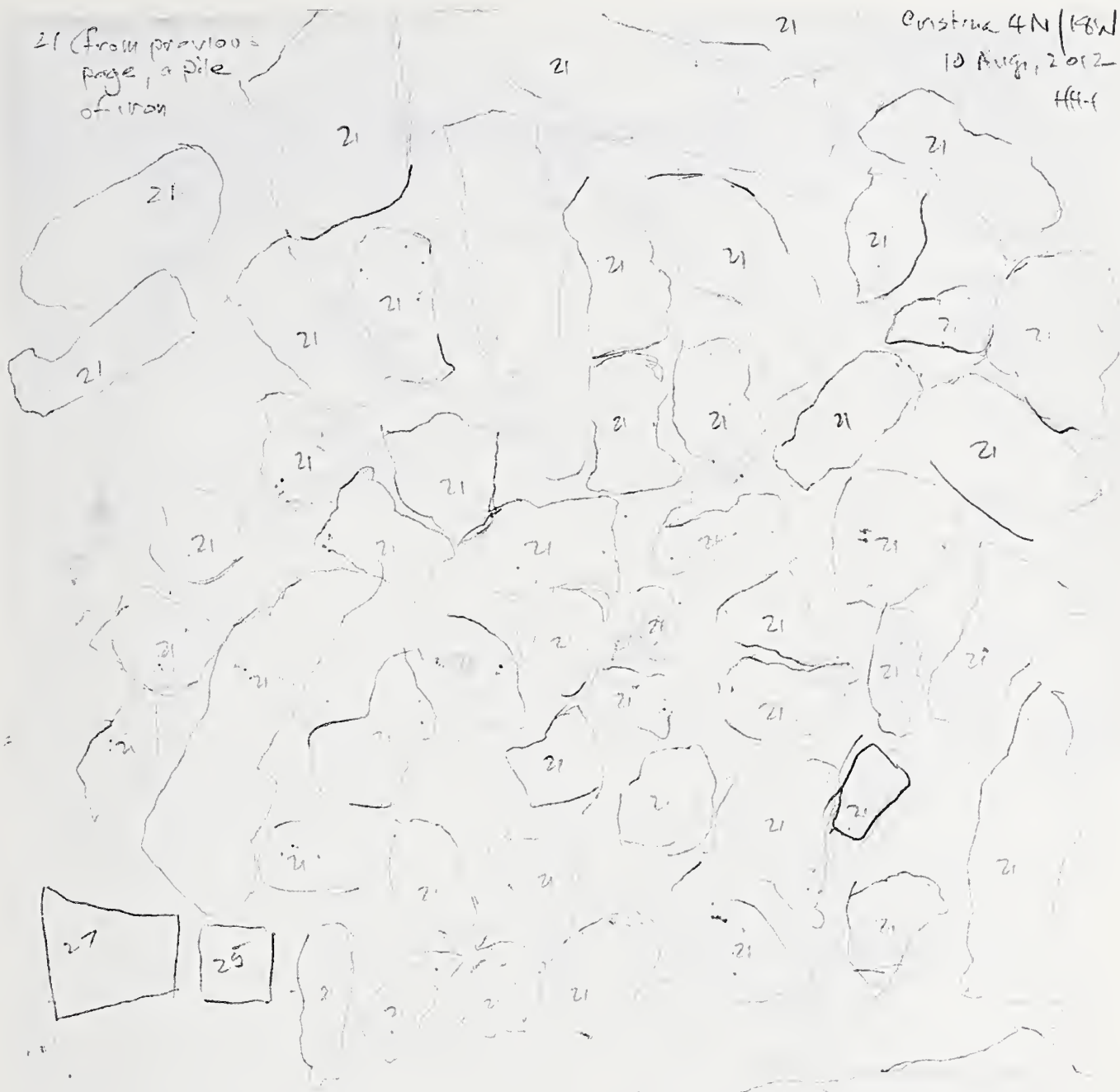
22. F. -246

23. F. -240



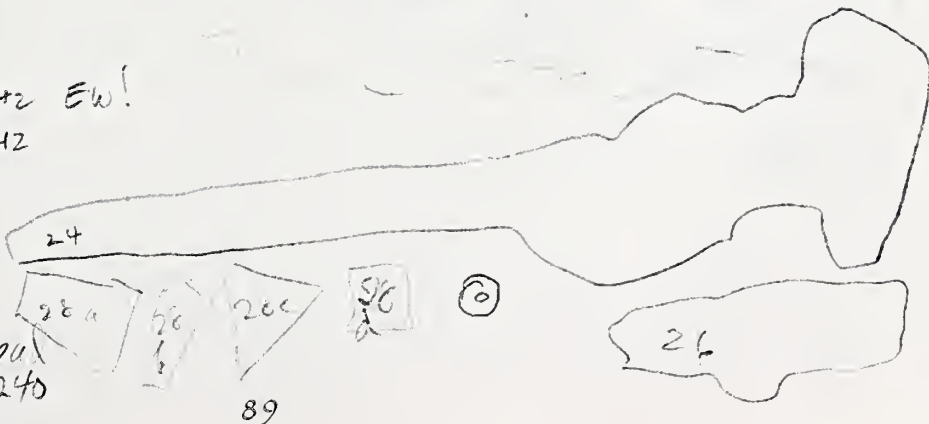
21 (from previous
page, a pile
of iron

Onstrua 4N (K&W)
10 Aug, 2012
H4-1



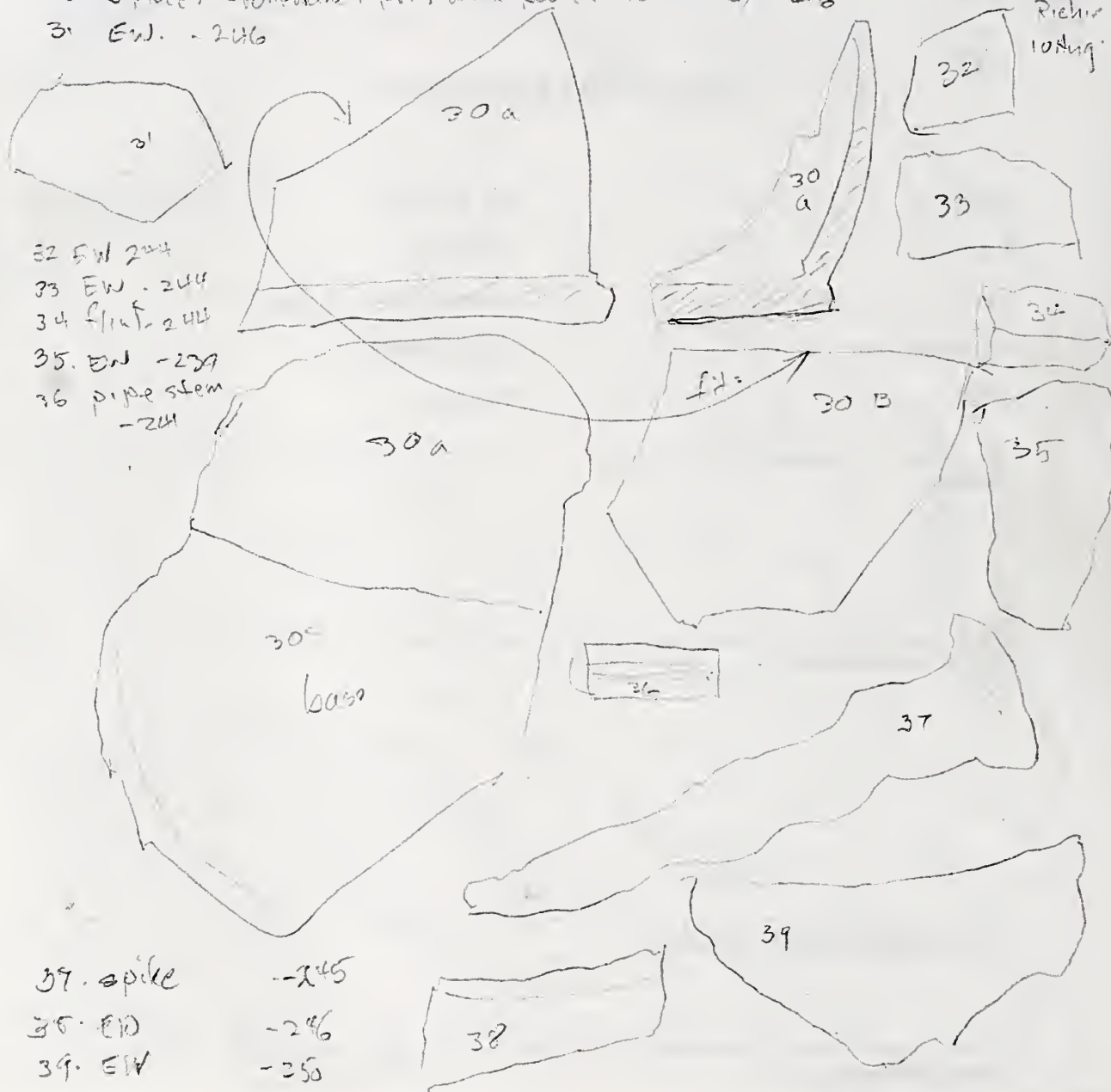
blade? 21

- 24. Spike -237
- 25. ~~stone~~ ware -242 EW!
- 26. nail -242
- 27. EW. 242
- 28. EW (4 psc)
From this area
- 29. Red + white
striped black bowl
-240



30 3 pieces stoneware (fits with p.c. in 10N22W) - 246
 31 EW. - 246

✓ 144-1
 AM 18W
 Christina
 Richin
 10 Aug.



32 SW 244
 33 EW - 244
 34 flint - 244
 35. SW - 244
 36 pipe stem
 - 244

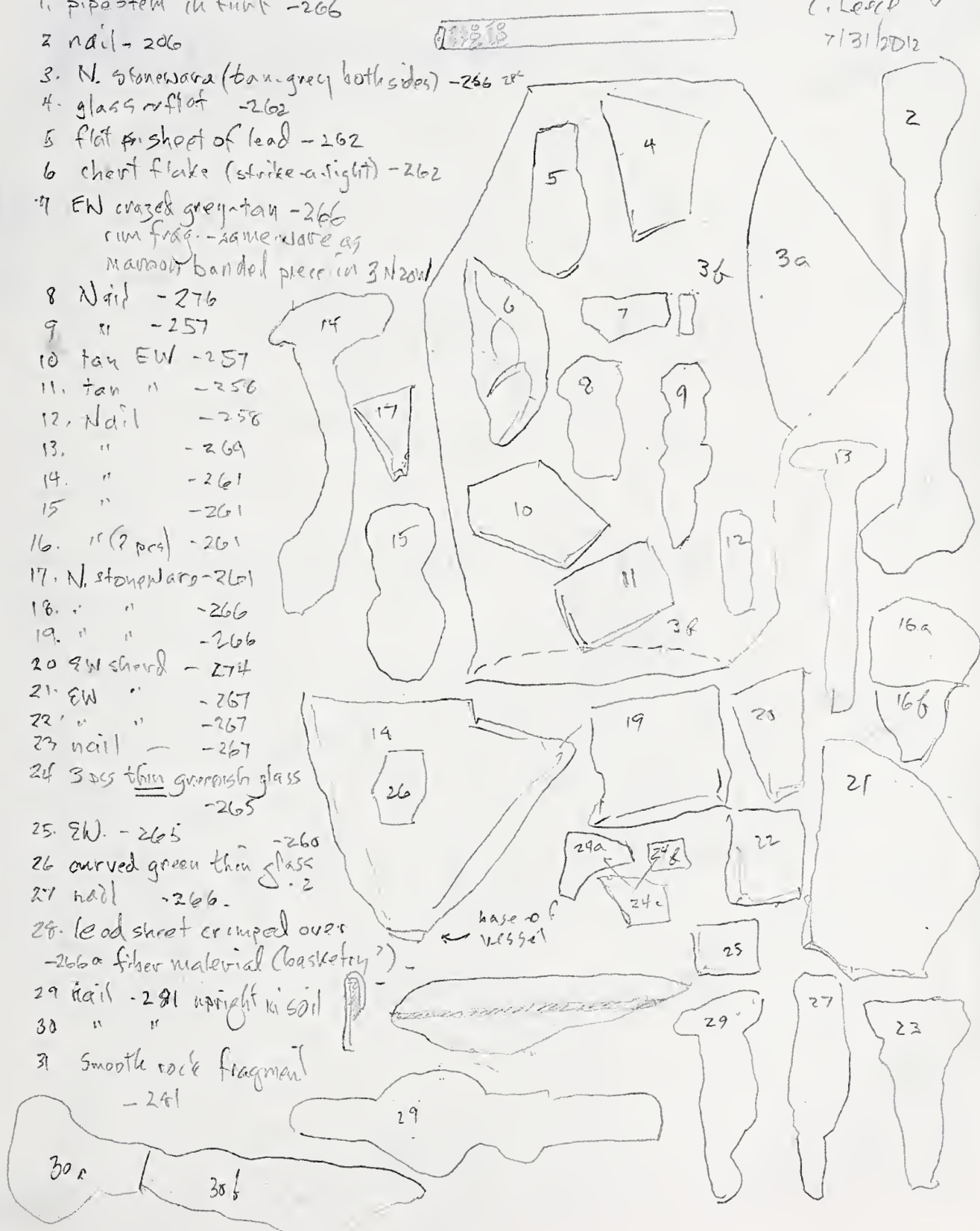
39. spike - 245
 38. EW - 246
 39. EW - 250

HH-1
4N 22W
C. Leach ✓
7/31/2012

1. pipestem in turf - 266
- 2 nail - 266
3. N. stoneware (tan-grey both sides) - 266 28
4. glass rfflot - 262
- 5 flat sheet of lead - 262
- 6 chert flake (strike-a-light) - 262
- 7 EW crazed grey-tan - 266
rim frag. - same ware as
mammoth banded piece in 3N20W

- 8 Nail - 276
- 9 " - 257
- 10 tan EW - 257
11. tan " - 258
12. Nail - 258
13. " - 269
14. " - 261
- 15 " - 261
16. " (2 pcs) - 261
17. N. stoneware - 261
18. " " - 266
19. " " - 266
- 20 EW shard - 274
21. EW " - 267
22. " " - 267
- 23 nail - 267
- 24 3 pcs thin greenish glass - 265

25. EW. - 265
- 26 curved green thin glass - 265
- 27 nail - 266
28. lead sheet crumpled over
- 266 a fiber material (basketry?)
- 29 nail - 281 upright in soil
- 30 " " "
- 31 Smooth rock fragment - 241



RH-1
 4N 22W
 Christie L.
 2 Aug 2012

32 EW with white background glaze and gold

zig-zag bands -280

33 EW plain -280

34 thin green glass, bottle/glass -280

35 chest flake -280

36 Nail -267

37 N. Stoneware -267

38 nail -279

39. " -279

40 Ampule jar(?) glass, top

41 curved glass frag -270

42 EW -270

43 EW -270

44 nail (3 pcs) -261

45 clanked spike -281

46 lenticular blue-striped glass bead -274 (split lengthwise)

47 nail -274

48 9W with grey glaze (poor part) maroon-banded ware from

49 9W - plain ware -274 3N 20W

50 Flat iron shod (blade?) -267 W

51 spike -266

52. nail -270

53. nail -272

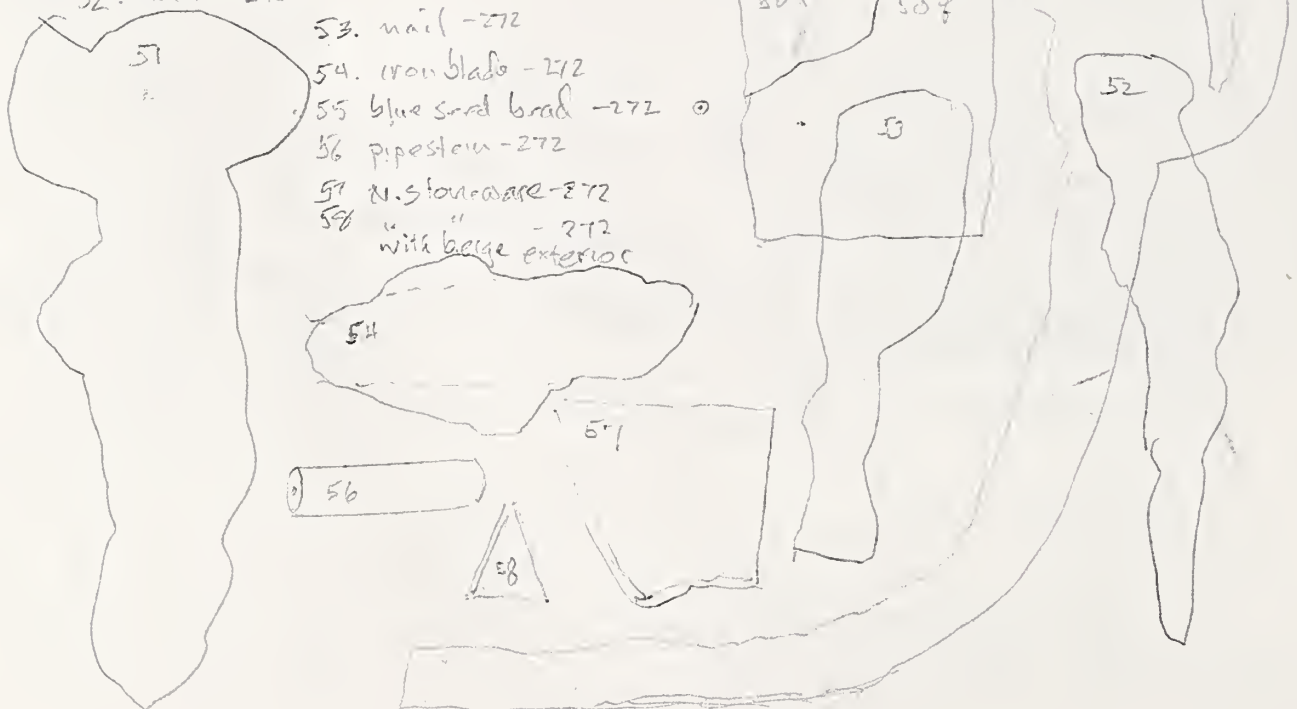
54. iron blade -272

55 blue sand brad -272

56 pipestem -272

57 N. Stoneware -272

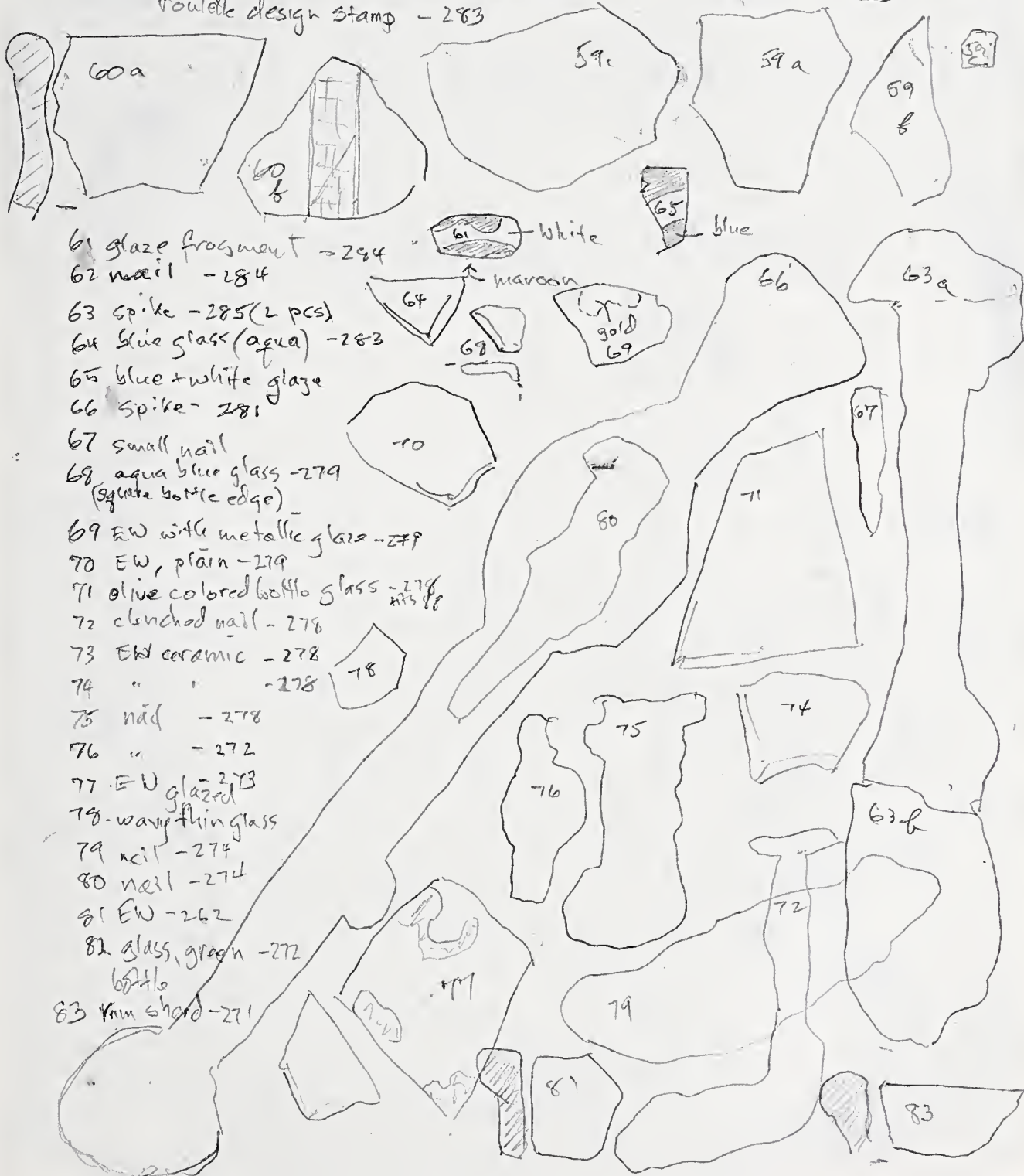
58 " with beige exterior



#4-1
 HN22W
 C. Hecke
 4 Aug. 2012

59.

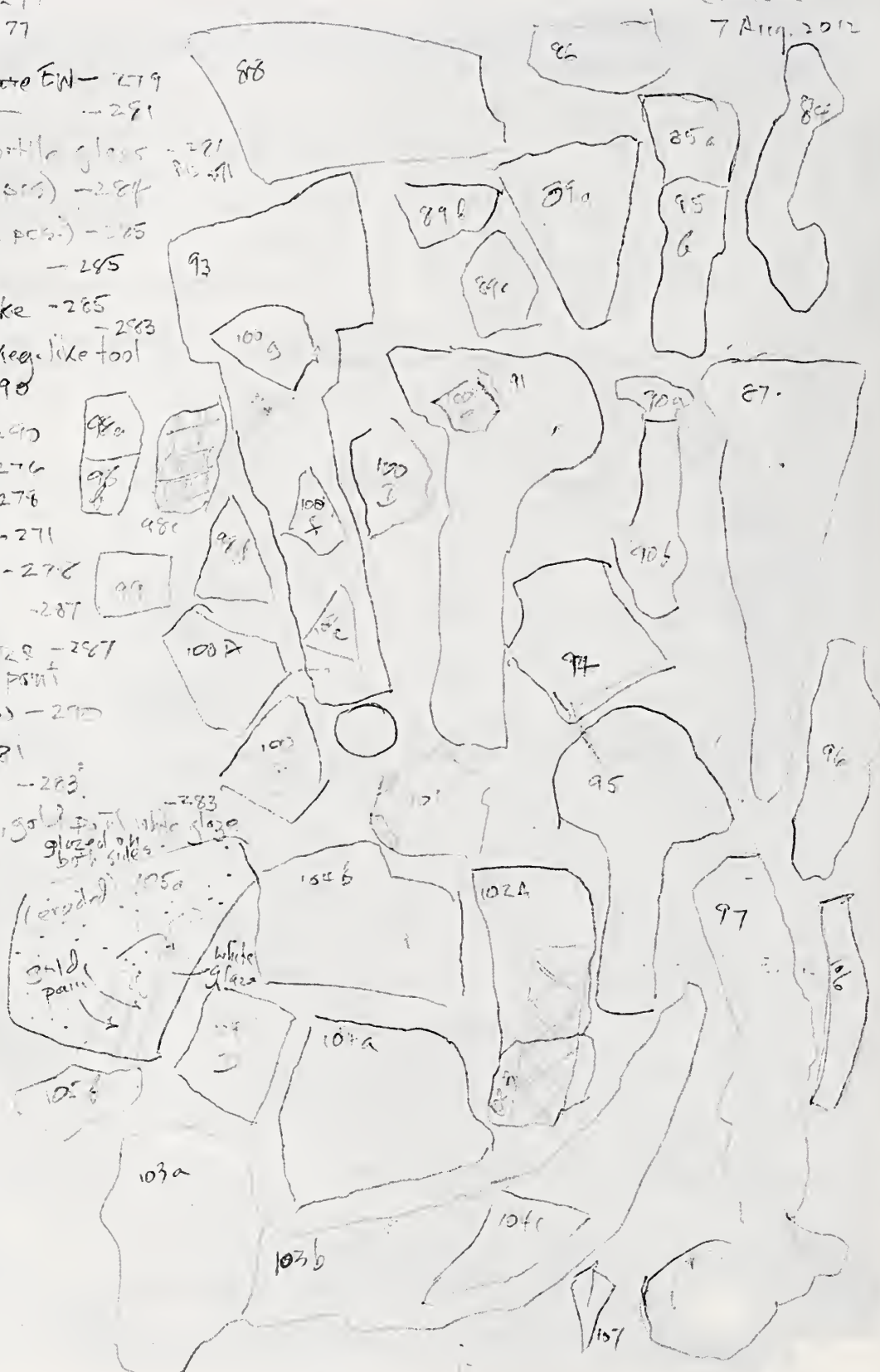
59. EW shards with gold metallic paint/glaze - poor preservation glazed on both sides
 60 - Plain EW majolica, 2 pieces, one with
 roulette design stamp - 283



- 61 glaze fragment - 284
- 62 nail - 284
- 63 spike - 285 (2 pcs)
- 64 blue glass (aqua) - 283
- 65 blue + white glaze
- 66 spike - 281
- 67 small nail
- 68 aqua blue glass - 279
(syringe bottle edge)
- 69 EW with metallic glaze - 279
- 70 EW, plain - 279
- 71 olive colored bottle glass - 278
- 72 clenched nail - 278
- 73 EW ceramic - 278
- 74 " " - 278
- 75 nail - 278
- 76 " " - 272
- 77 EW glaze - 273
- 78 - wavy thin glass
- 79 nail - 274
- 80 nail - 274
- 81 EW - 262
- 82 glass, green - 272
- 83 rim shard - 271

144-1
HN 22W
C. Leece
7 Aug. 2012

84. nail -277
85. " -277
86. ~~stone~~ EW -279
87. nail -281
88. green bottle glass -281
89. EW (3 pcs) -284
90. nail (2 pcs) -285
91. spike -285
92. flint flake -285
93. nail/keg. like tool -283
94. EW -290
95. nail -290
96. " -276
97. " -278
98. 4 EWs -271
99. EW -278
100. 7 pcs EW -287
101. white glass -287
blue paint
102. 2 pcs EW -290
103. stone -281
104. 4 pcs EW -283
105. 2 pcs EW, gold paint white glaze -283
glazed on both sides
106. nail -287
107. chert flake (crystal) 105a



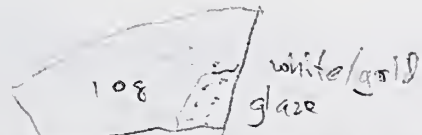
4H-1

4N 22W

Chert, Lenses
9 Aug 2012

108. Glazed EVR

-290



109. Hard earthenware - almost stone - 290



110. EVR - 290

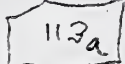
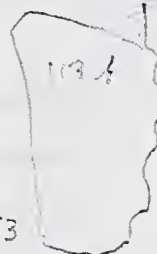


111 Nail - 293

112 EVR - 292



113 " - 293 (3 pcs)



114 Nail - 293

115 flint gunspall grey drab - 293

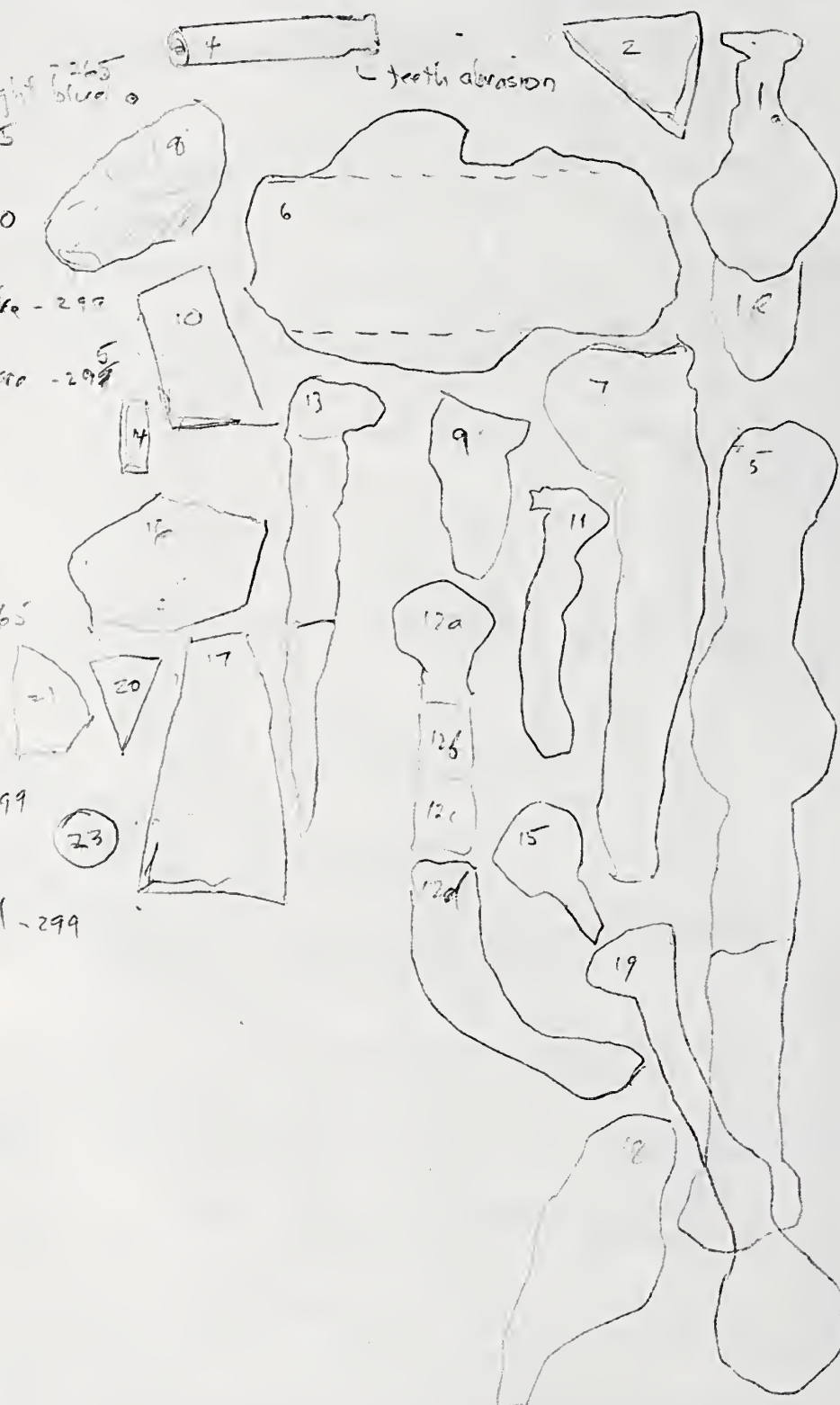


116. black seed bead (beadwork)



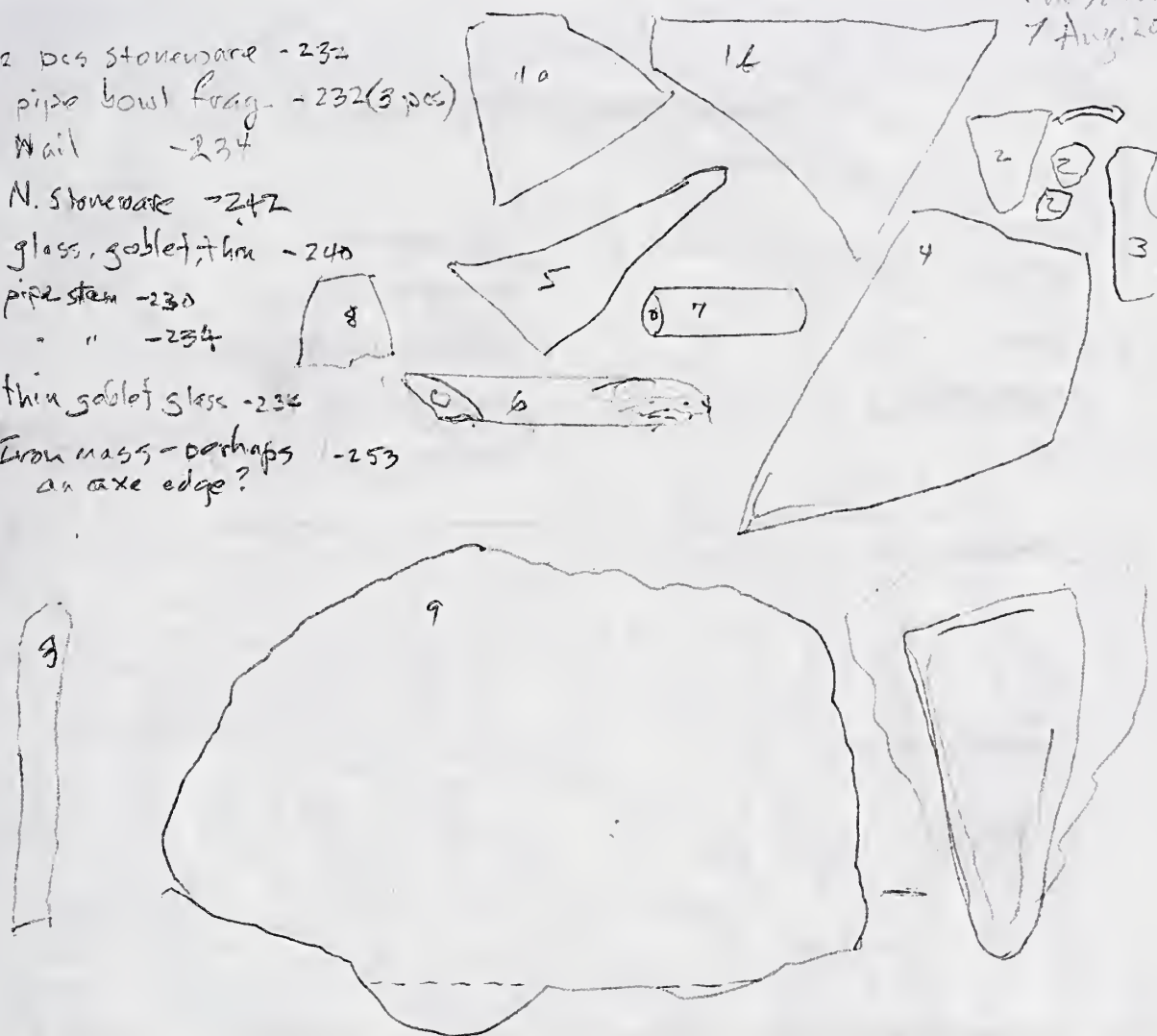
HH-1
 4N 24W
 vChristie L.
 9 Aug. 2012

1. Nail - 275
2. EW - 275
3. blue and bead light blue - 265
4. pipe stem - 265
5. spike - 270
6. iron strap - 280
7. nail - 299
8. ground slate flake - 299
9. nail - 295
10. pottery sherd - 295
11. nail - 295
12. nail - 295
13. nail - 2 pcs - 270
14. glass - 270
15. nail - 265
16. blade fragment - 265
17. stone ware - 270
18. nail - 270
19. nail - 271
20. SW - 305
21. slate ground? - 299
 (part of #22)
22. EW - 299
23. lead musket ball - 299



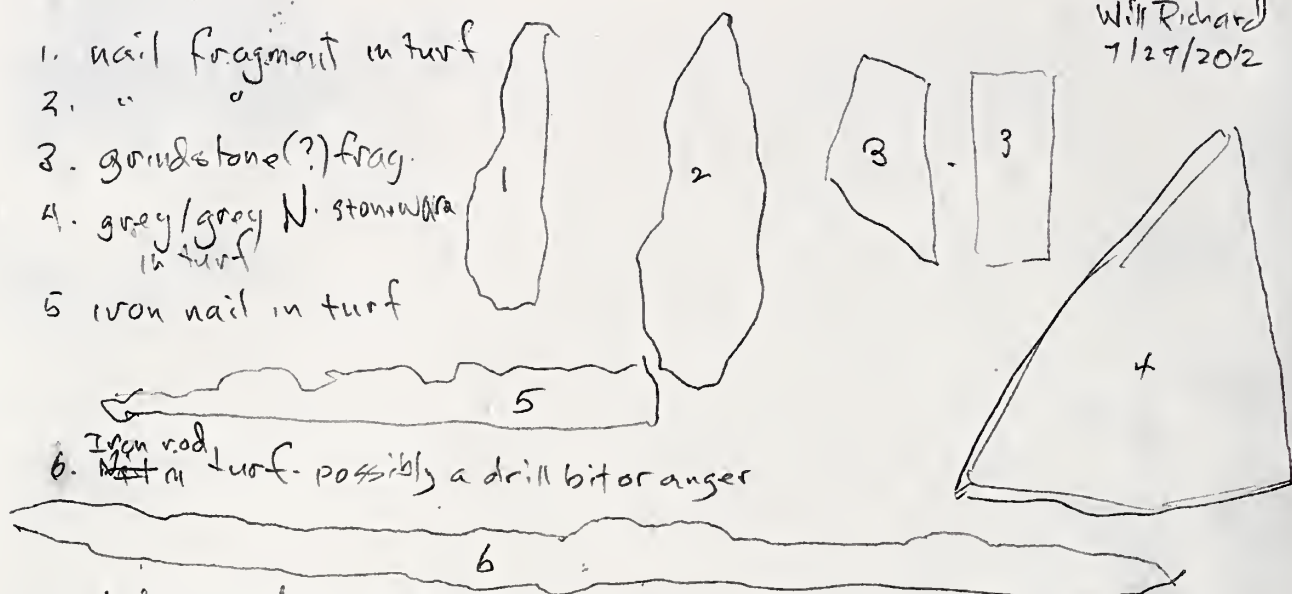
44-1
6N 18N
Christina
7 Aug. 2012

1. 2 pcs stoneware - 232
2. pipe bowl frag. - 232 (3 pcs)
3. Nail - 234
4. N. Stoneware - 242
5. glass, goblet, thin - 240
6. pipe stem - 230
7. " " - 234
8. thin goblet glass - 234
9. Iron mass - perhaps
an axe edge? - 253



14N+
 ✓ 6N 22W
 Will Richard
 7/29/2012

1. nail fragment in turf
2. "
3. groundstone(?) frag.
4. grey/grey N. stoneware
in turf
- 5 iron nail in turf



6. Iron rod
in turf - possibly a drill bit or auger

7. lead-wrapped iron spike (sinker!) - 236



8. iron nail - 242
9. " " - 247
10. iron spalls (2) - 246
11. iron nail - 246
12. iron spike - 252
13. stoneware cup - 255
bottom

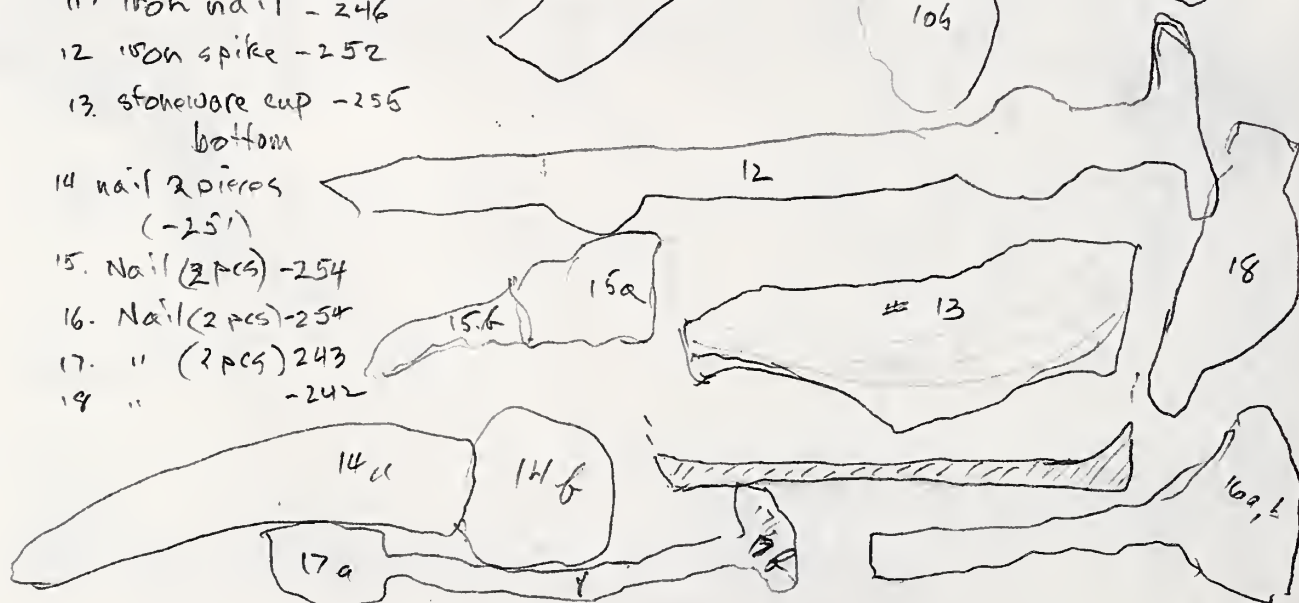
14. nail 2 pieces
(-251)

15. Nail (2 pcs) - 254

16. Nail (2 pcs) - 254

17. " (2 pcs) 243

18. " - 242

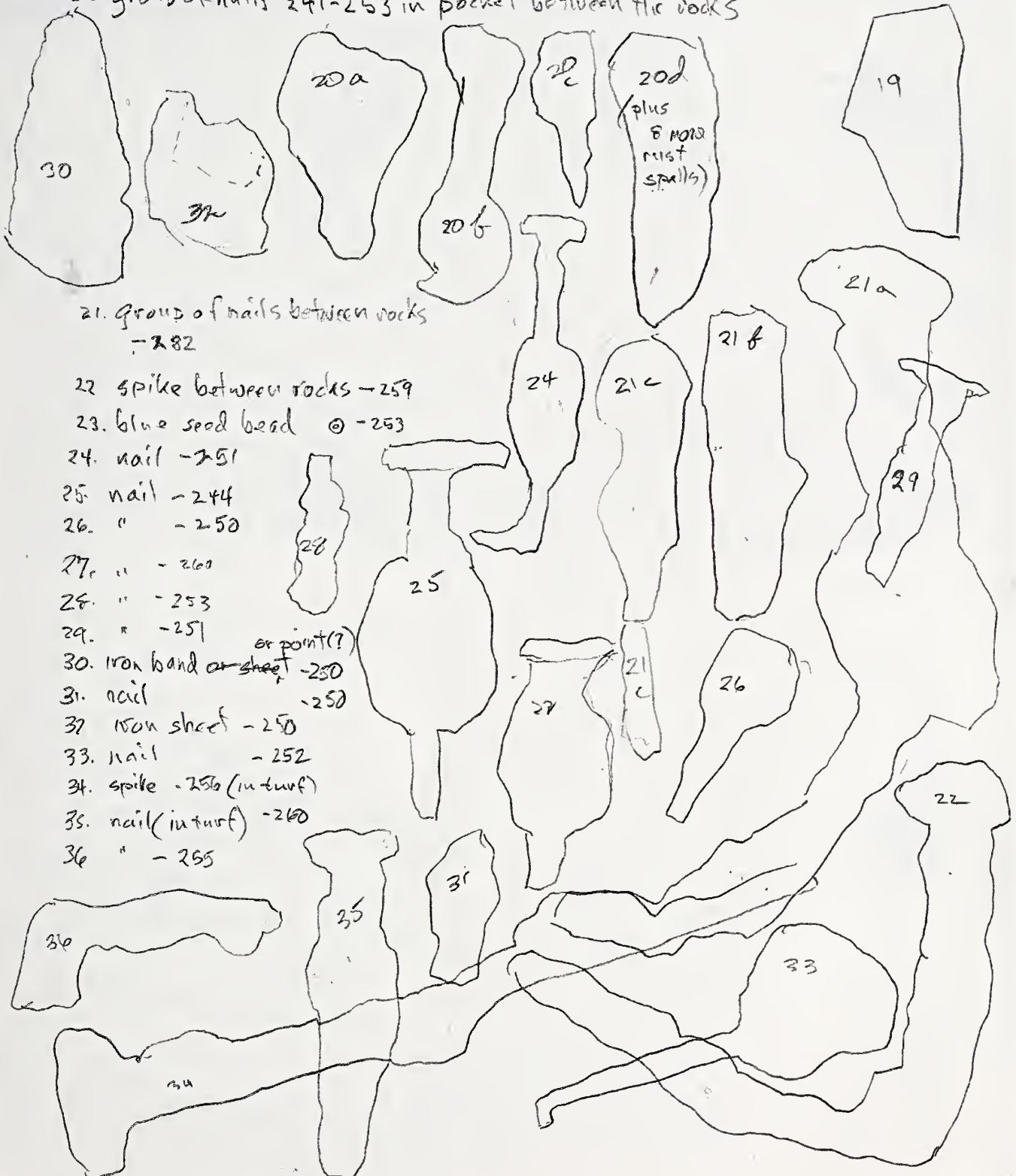


HH-1
6N 22W
Will. Richard
7/30/2012

14.

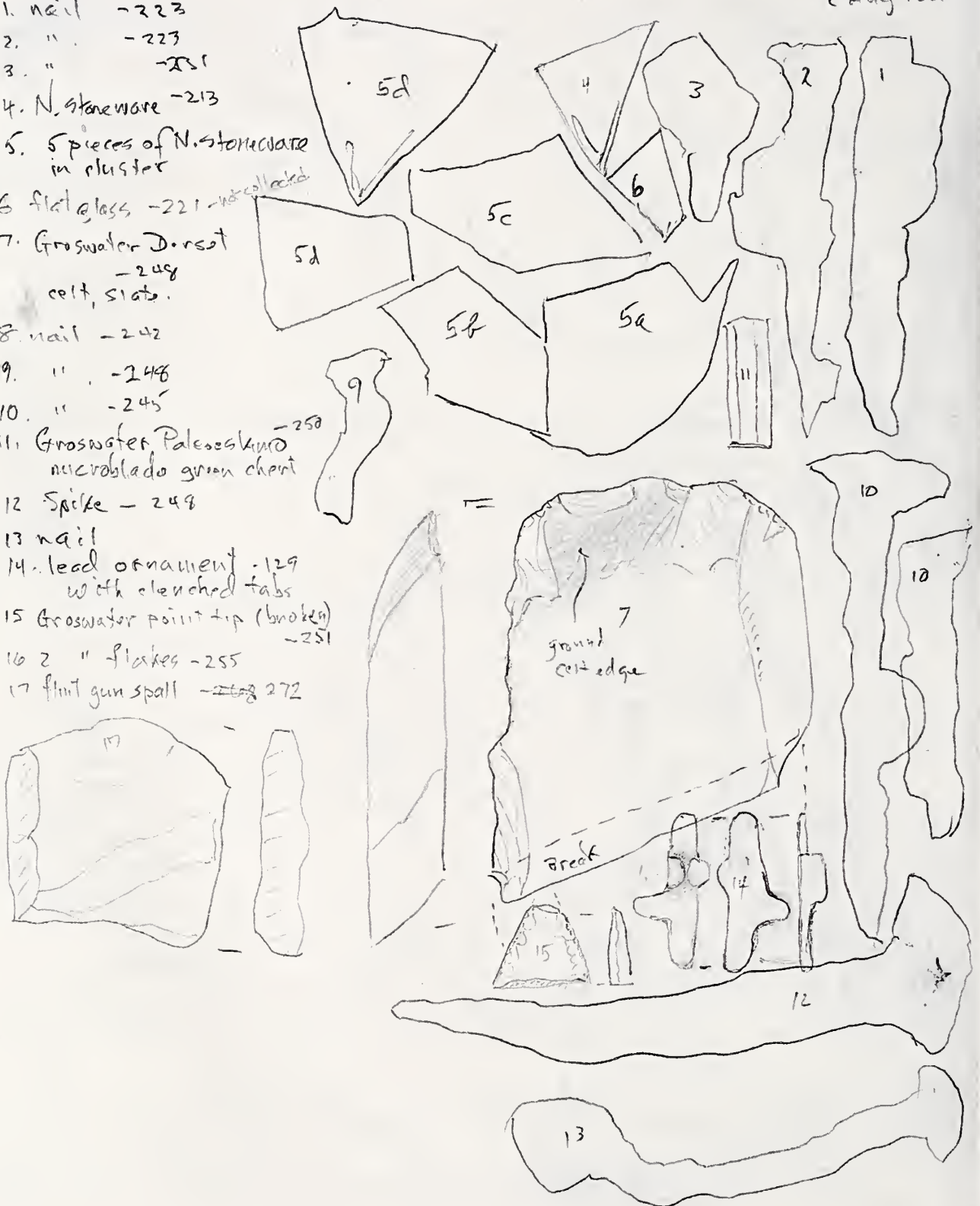
19. N. stonecrop -241

20 group of nails 241-253 in pocket between the rocks



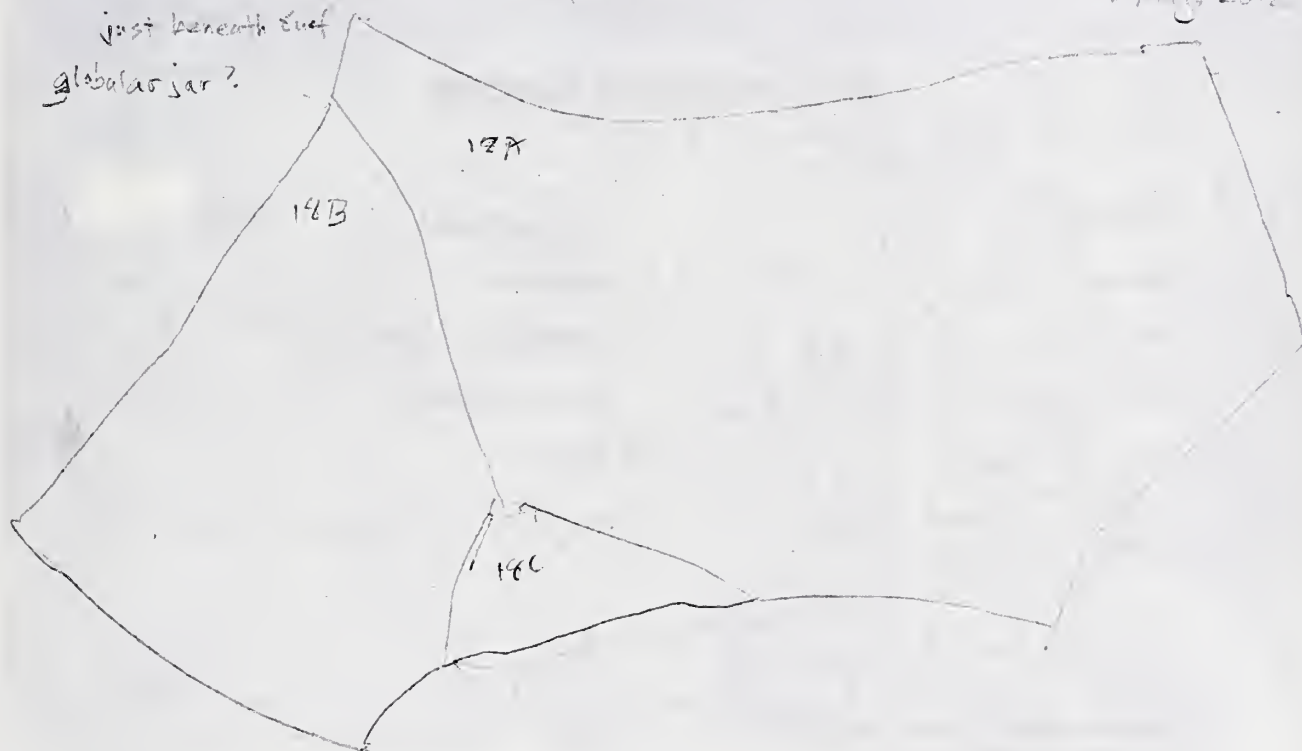
HH-1
 6N 24W
 Maricopa
 2 Aug. 2012

1. nail - 223
2. " - 223
3. " - 251
4. N. stoneware - 213
5. 5 pieces of N. stoneware in cluster
6. flat glass - 221 - not collected
7. Groswater Dorset - 248
 cell, slate.
8. nail - 242
9. " - 248
10. " - 245
11. Groswater Paleosoluro - 250
 microblado green chert
12. Spike - 248
13. nail
14. lead ornament - 129
 with clenched tabs
15. Groswater point tip (broken) - 251
16. 2 " flakes - 255
17. flint gun spall - 272



HA1
6N 24W
Will/Mario
7 Aug 2012

14 N. stoneware vessel - 251 3 pieces
just beneath shelf
globular jar?



K14-1
 ✓ 8N 18W
 10F
 7/31/2012

1. Nail - 218 in black earth
2. Earthenware, plain - 219
3. Nail - 218
4. ^{tan}glazed ceramic - 218 (perhaps R.T.?)

5. Nail - 223
6. " - 222
7. iron nail/sheet
8. " "
9. " "
10. " "
11. " "
12. " "

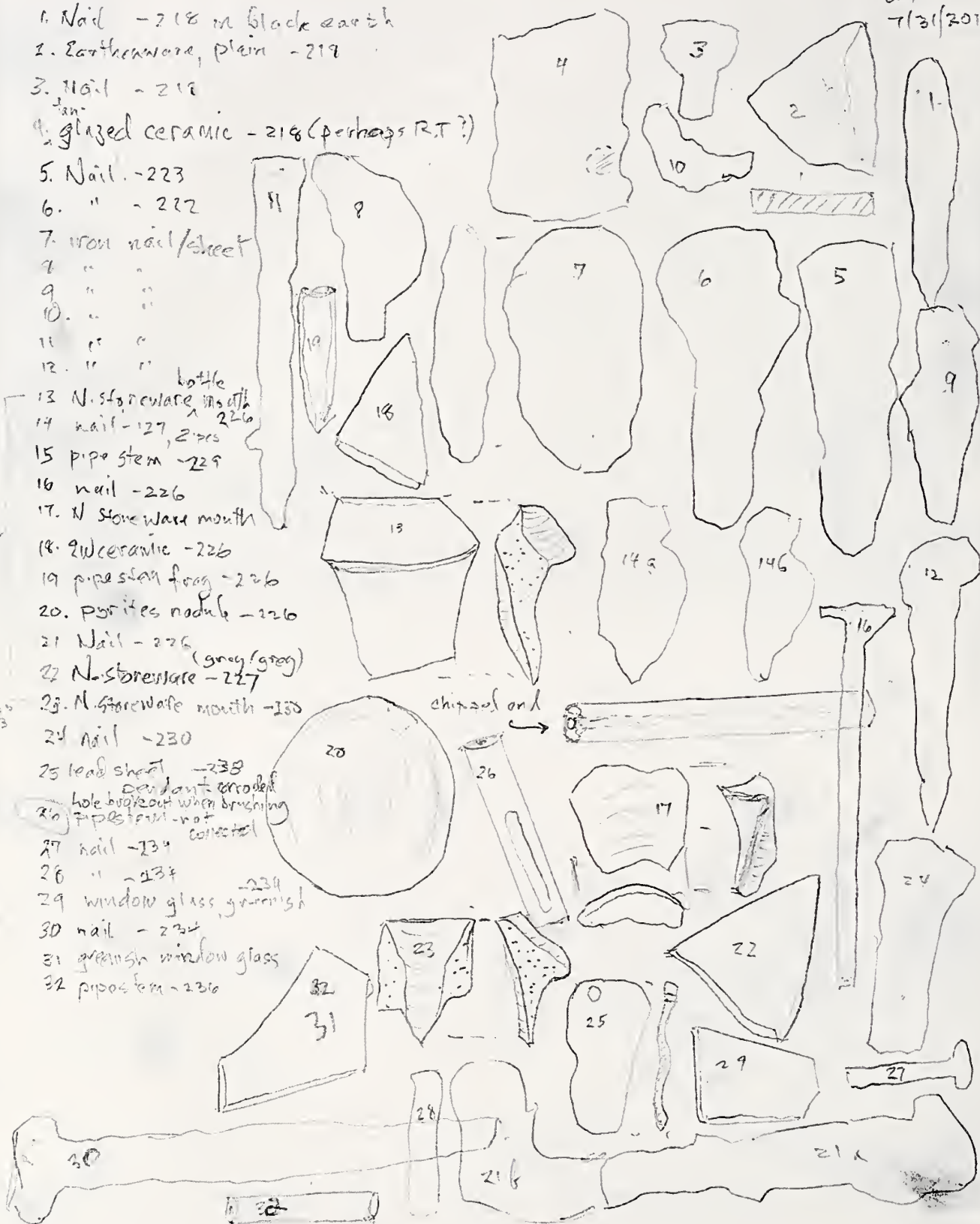
13. N. storeware ^{bottle} mouth
14. nail - 127, 218
15. pipe stem - 229
16. nail - 226
17. N. storeware mouth

18. 2W ceramic - 226
19. pipe stem frag - 226
20. porites nodule - 226
21. Nail - 226 (gray/gray)
22. N. storeware - 227

23. N. storeware mouth - 130
24. Nail - 230

25. lead sheet - 238
26. ^{pendant} hole breakout when brushing

27. nail - 134
28. " - 134
29. window glass, greenish
30. nail - 234
31. greenish window glass
32. pipe stem - 236



33 spike, clenched - 236
 34 nail - 236
 35 EW ceramic - 222

36. Nail - 228
 37. Nail - 225
 38. nail - 235

39 Pipe stem - 223

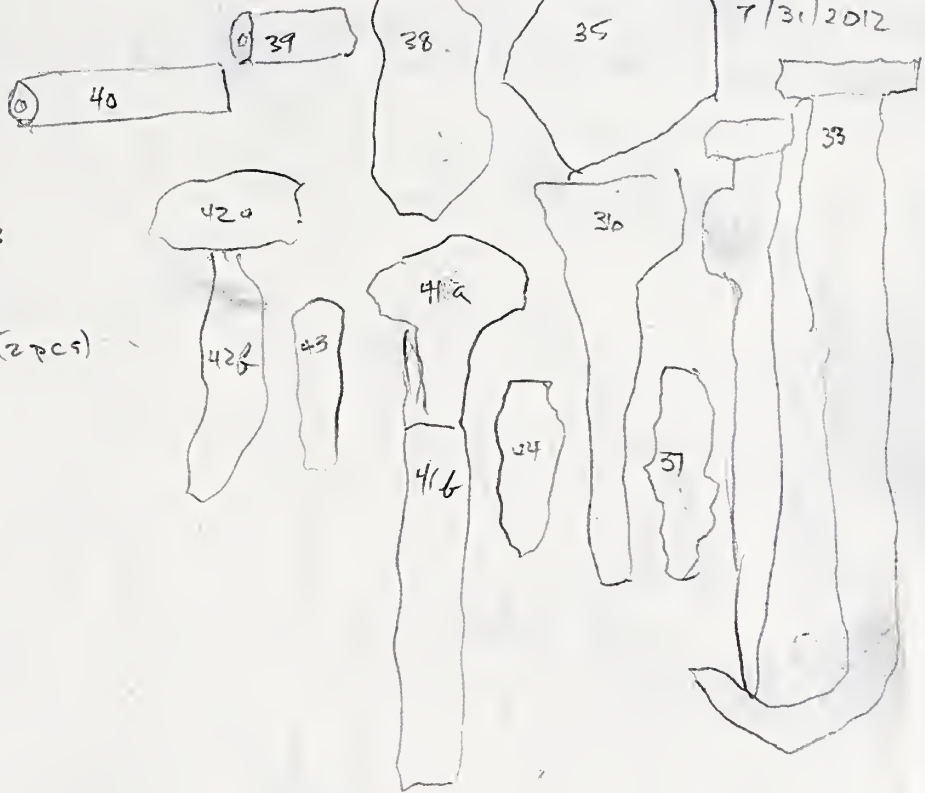
40. " " - 240

41 nail - 234

42 " - 232 (2 pcs)

43 " - 232

44 " - 234



✓ #H-1
 8N/18W
 WF
 7/31/2012

NH-1

✓ 8N 22W

Christine Johnson

7/29/2012

1. grey/grey Normandy stoneware in turf
2. grey inside/brown outside N. stoneware in turf
thin r-section

3. N. stoneware - 233
grey (of brn) (i)

4. Nail - 236

5. " - 236

6. " - 231

7. N. stoneware - 239 grey/brn(s)

8 Nail - 241

9. " - 245

10. " - 240

11. Nail - 240

12. N. stoneware - 246 grey (brn) (o)

13. Nail - 246

14. Nail - 245

15. Nail - 242

16. " - 242

17. Chisel made
from nail - 242

18. Nail - 242

19. Nail - 237

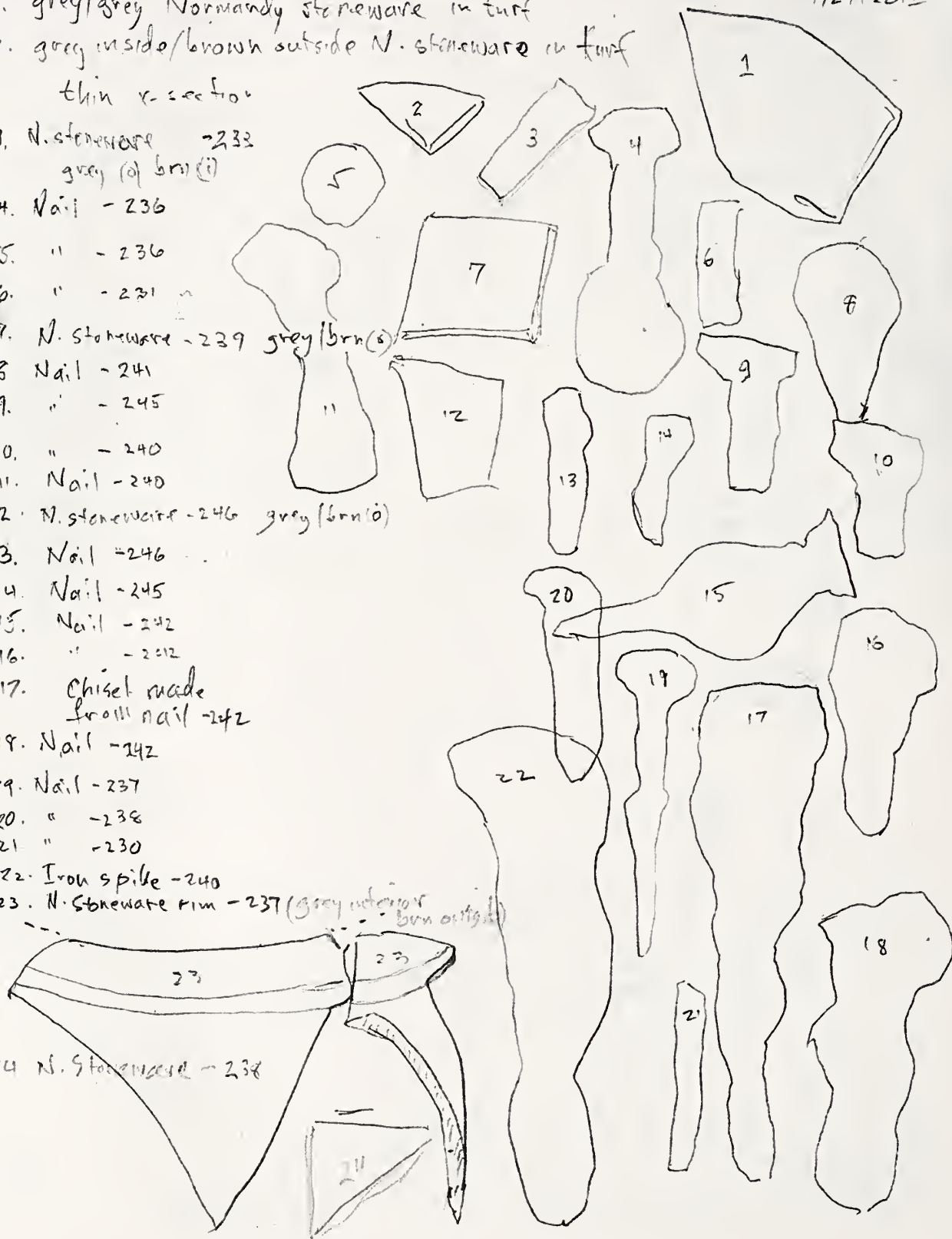
20. " - 238

21. " - 230

22. Iron spike - 240

23. N. Stoneware rim - 237 (grey interior
brn outside)

24. N. Stoneware - 238



25

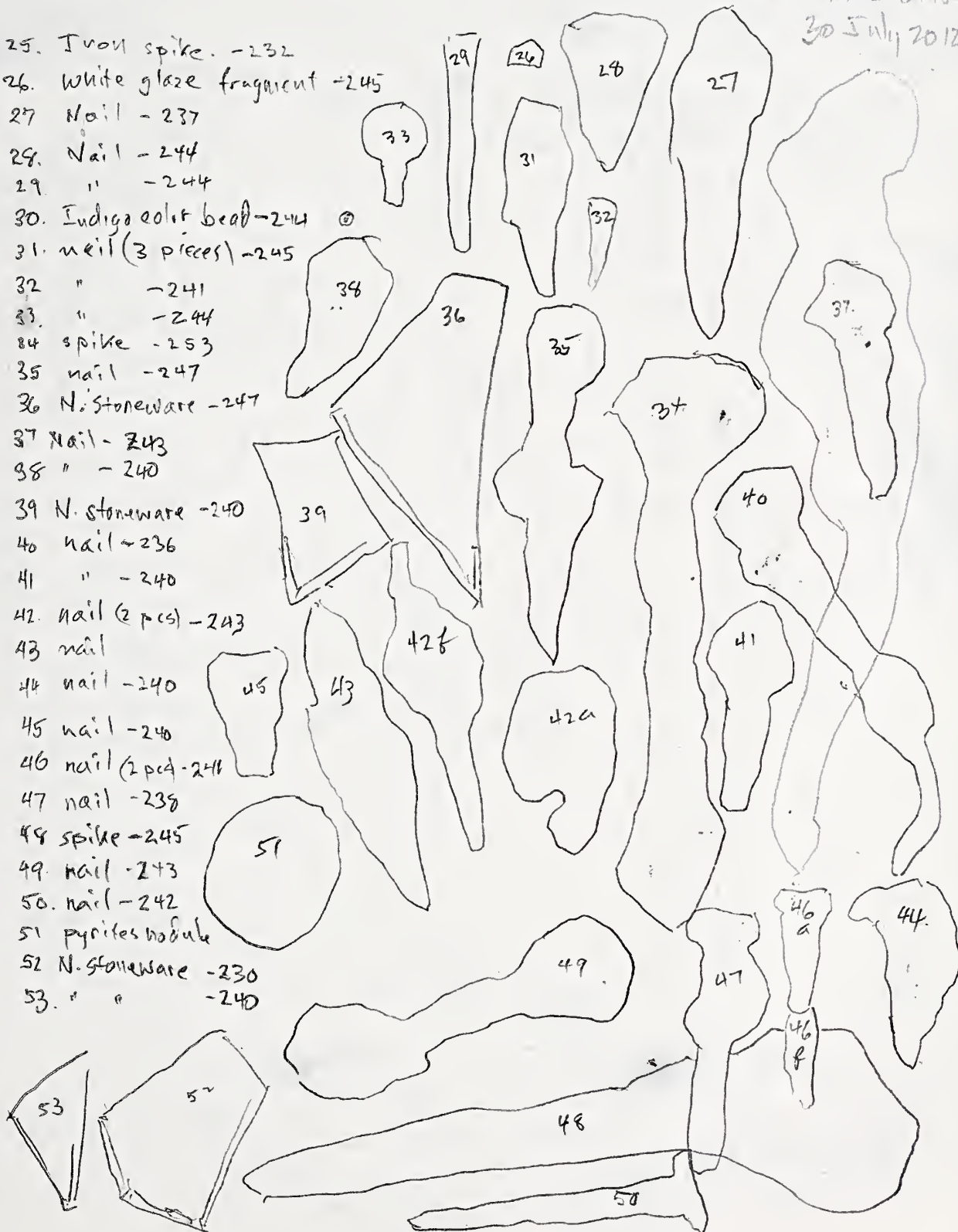
H.H. 1

8 N 22 W

Christine Johnson

30 July 2012

- 25. Iron spike. -232
- 26. white glaze fragment -245
- 27. Nail -237
- 28. Nail -244
- 29. " -244
- 30. Indigo color bead -244
- 31. nail (3 pieces) -245
- 32. " -241
- 33. " -244
- 34. spike -253
- 35. nail -247
- 36. N. stoneware -247
- 37. Nail -243
- 38. " -240
- 39. N. stoneware -240
- 40. nail -236
- 41. " -240
- 42. nail (2 pcs) -243
- 43. nail
- 44. nail -240
- 45. nail -240
- 46. nail (2 pcs) -241
- 47. nail -238
- 48. spike -245
- 49. nail -243
- 50. nail -242
- 51. pyrites nodule
- 52. N. stoneware -230
- 53. " " -240



AH-1
 8N 22W
 Christine Johnson
 7/31/2004

54 iron spike - 245

55 nail - 247

56 " - 241

57 Corneline d'Aleppo bead (red) - 246 ⁵⁸ (O)

58 ^{clenched} Spike, standing upright - 246 (to N)

59 Nail (3 pcs) - 245

60. " (5 pcs) - 251

61 " (3 pcs) - 250

62. " - 248

63. spike (3 pcs) - 248
 (or round rod)

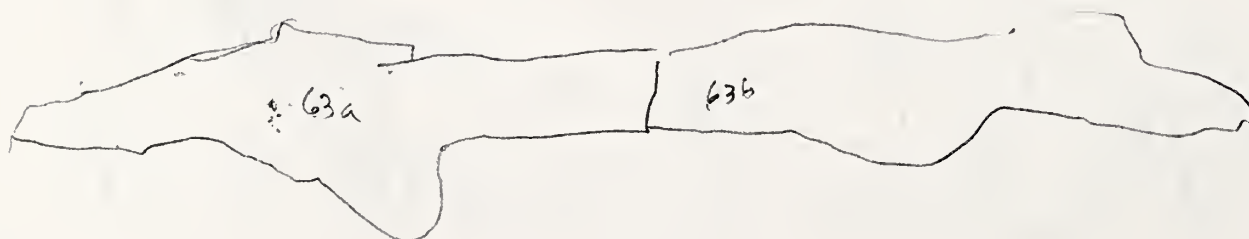
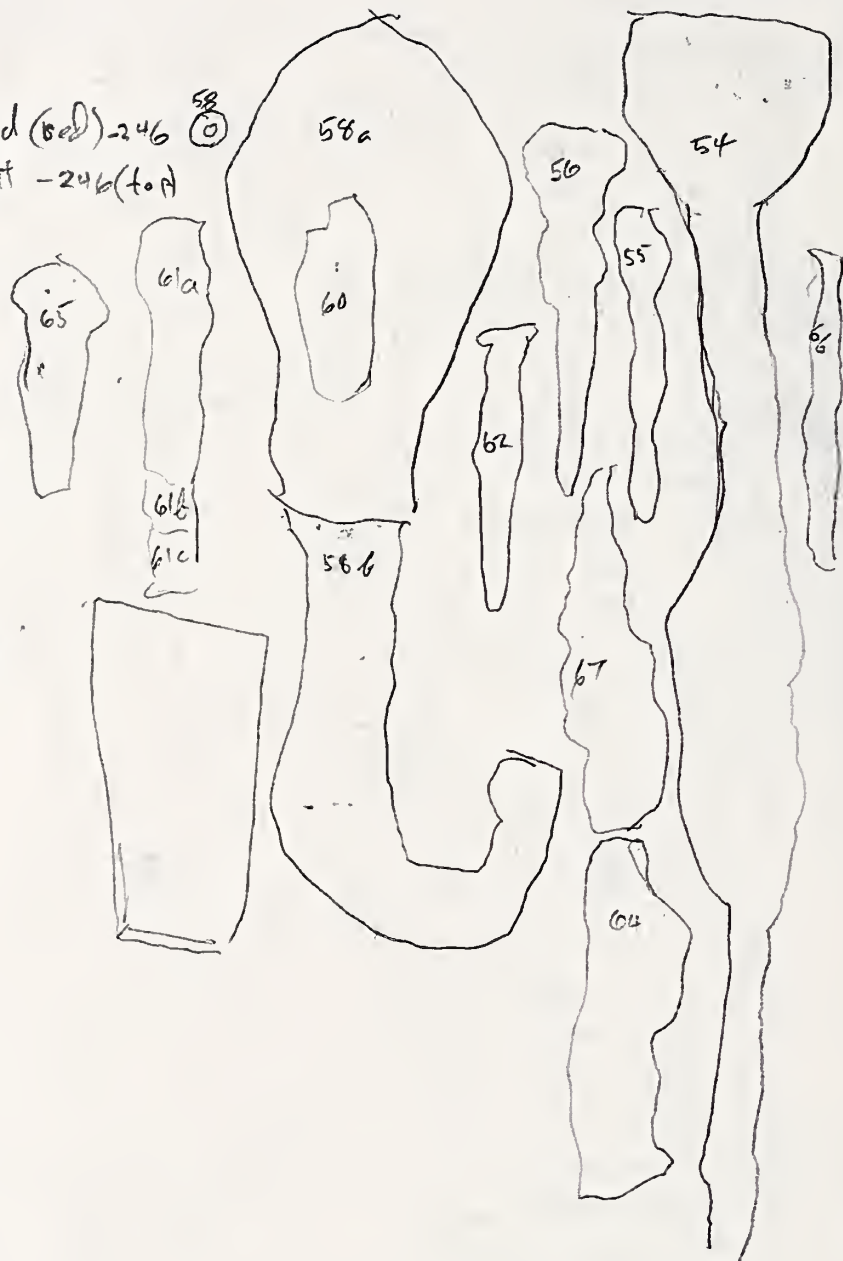
64 Nail - 251

65. " - 232

66 " - 250

67 " - 244

68 N. Stoneware - #234



HH-1
 2N 24W ✓
 Christine
 2 Aug. 2012

1 nail - 240

2 nail - 245

3 nail - 238

4 " - 253-267 (2 pcs)

5 " - 269

3 nail (2 pcs) - 250

4. iron sheet/blade - 251

5 nail - 249

6 " - 245

7. lead encased nail - 247
 (sinker) molded, nft wrapped.

8. nail - (2 pcs) - 254

9 nail 2 pieces - 255

10. mica sheet - 255

11. spike - 256

12 nail - 255

13. nail - 255

14 " - 250

15 " - 250

16 " - 250

17 nail - 244

18 " - 244

19. N. stoneware - 208

20. nail - 256

21 " - 256

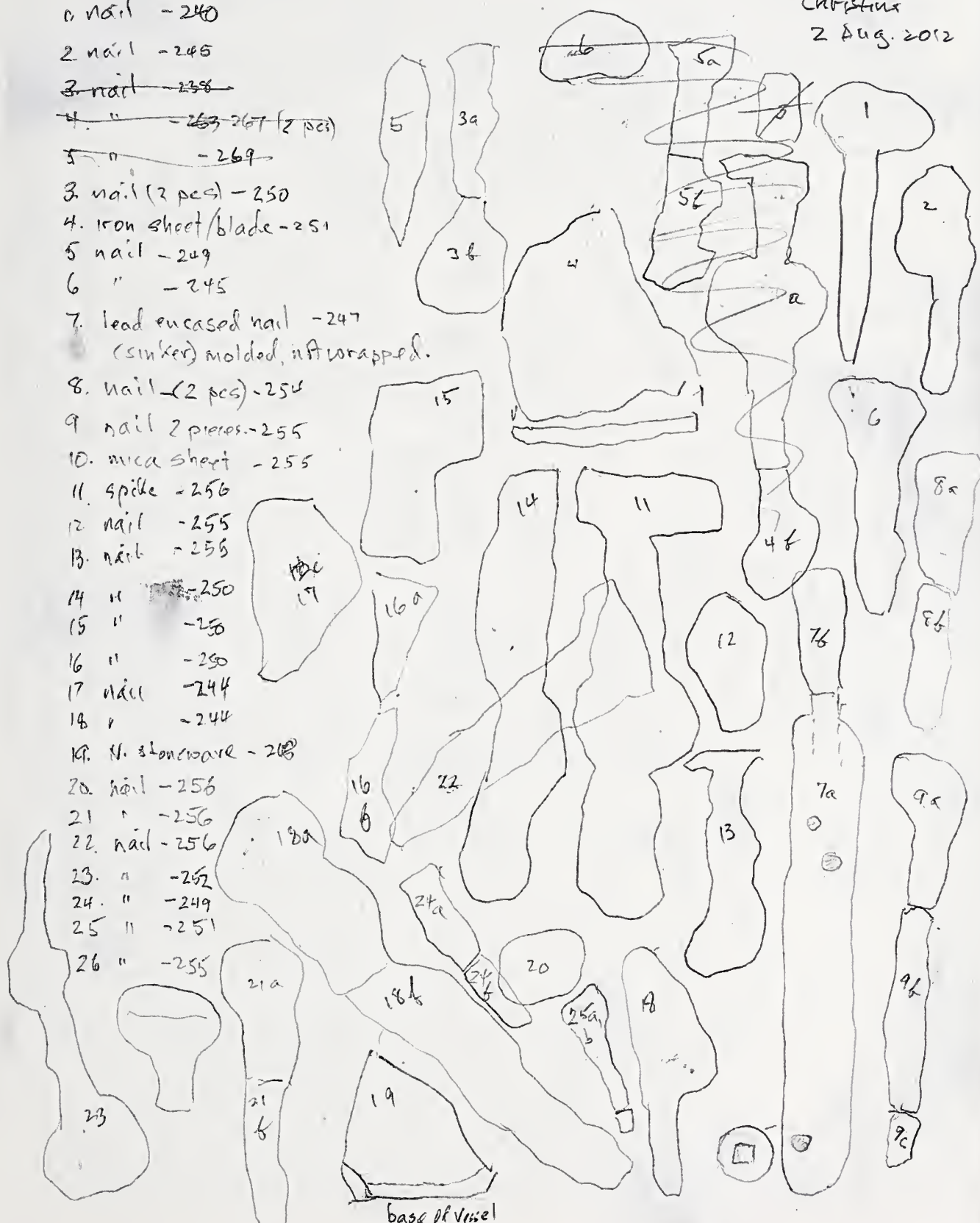
22. nail - 256

23. " - 252

24. " - 249

25 " - 251

26 " - 255



#H. -
 8N 29W.
 Christina
 4 Aug. 2012

27 nail -253

28 nail -256

29 nail -257

30 Groswater chert flake -264

31 " microblade -264

32 Nail -256

33 stoneaxe -243

34 iron knife blade -255

35 Groswater burin-like tool -271
 spalled and ground

36 G.W. microblade -265

37 G.W. debitage (12 pss)

38 G.W. flake

39 G.W. flake/chunk

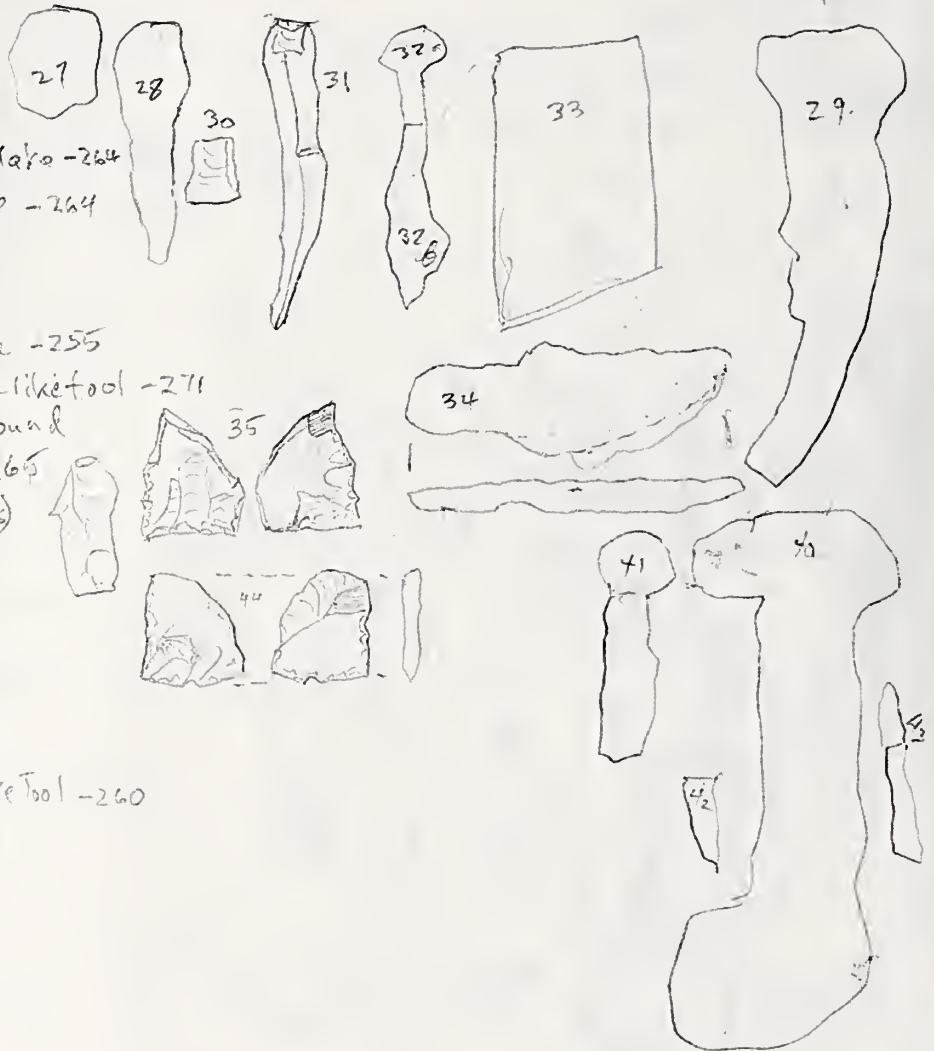
40 spike -255

41 nail -265

42 " -261

43 " -253 (2 pss)

44 Groswater Burin-like Tool -260



✓ 14-1
 8N 26W
 Christine J.
 2 Aug 2012

1. $\frac{1}{2}$ glass bead - 265



white bands, black glass
 interior

2 nail - 264

3 nail - 264

4 " - 263

5 " - 263

6. 2 pcs - 267

7. nail - 269

8. nail - 268

9. nail - 268

10 chisel, tangad - 269

11. pipestem - 272

(ticking hoops, circles
 and spiral(ticking))



12. N. stoneware - 261

13. spike - 263 (2 pcs)

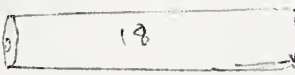
14. nail 266

15. " - 278 (2 pcs)

16. " - 275

17. EW ceramic - 281

18 pipestem - 272



19. nail - 254

20. " - 263

21 nail - 273 (4 pcs)

22. " - 296

23 pipestem - 283

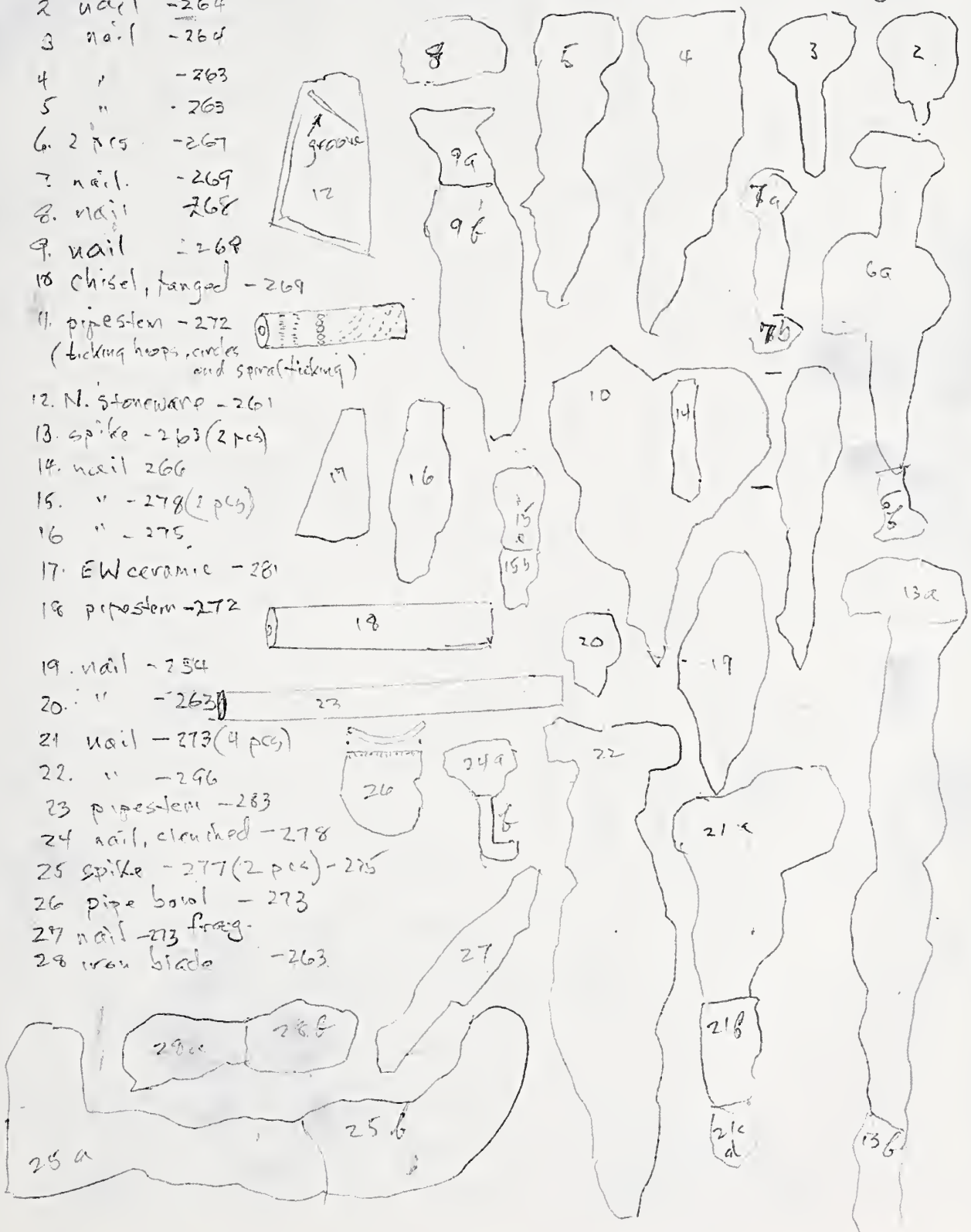
24 nail, clenched - 278

25 spike - 277 (2 pcs) - 275

26 pipe bowl - 273

27 nail - 273 frag.

28 iron blade - 263



29. nail -283-283

30. " -283

31. " -274

32. " -272

33. " -279

34 pipe stem -279

35. Nail -272

36 Plain EW -280, bowl-like curvature



HH-1

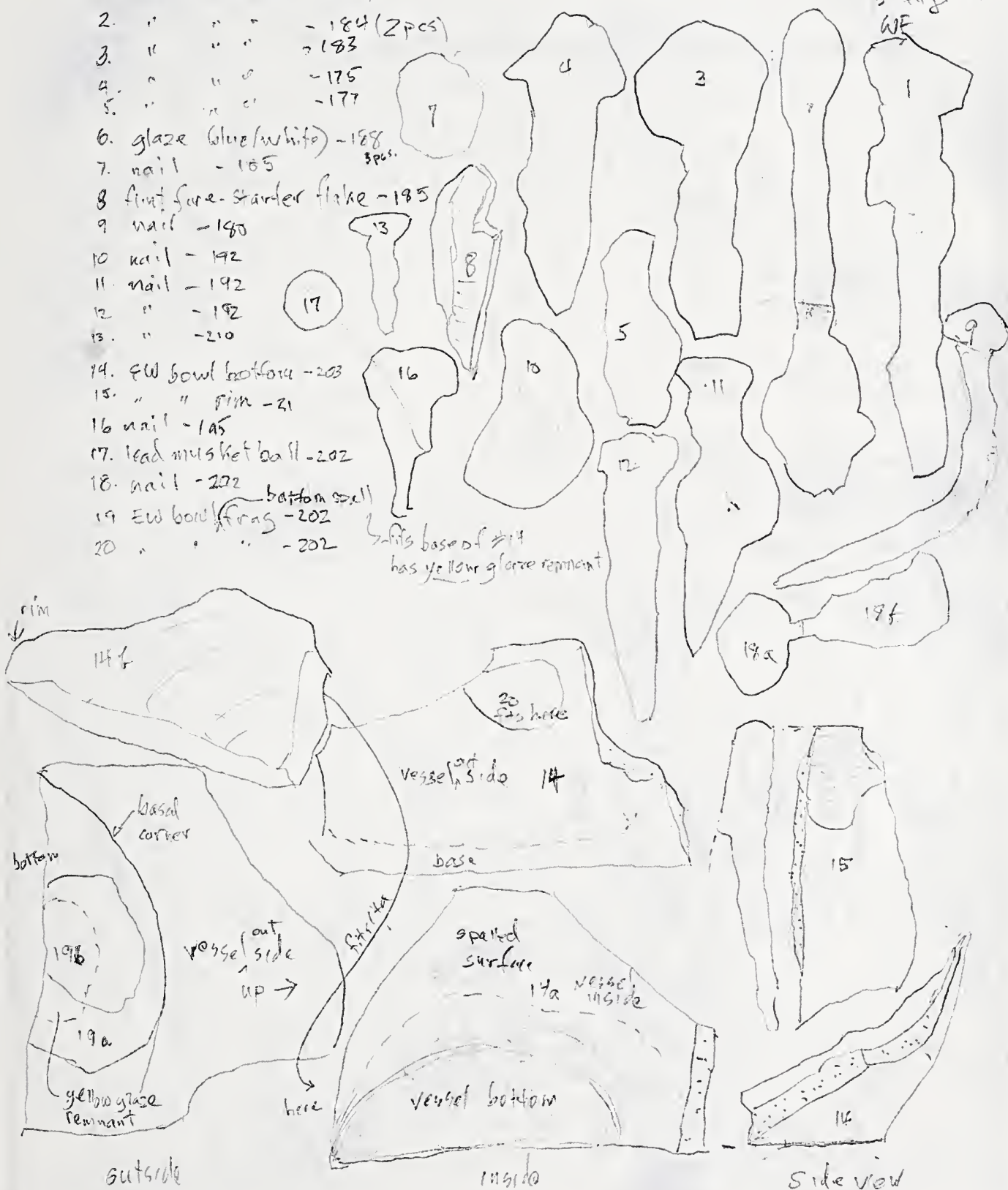
8N 26W

Christine

16 Aug. 2012

HH-1
10N 18W ✓
3 Aug 2012
WF

1. Nail-in turf - 184
2. " " " - 184 (2 pcs)
3. " " " - 183
4. " " " - 175
5. " " " - 177
6. glaze (blue/white) - 188
7. nail - 165
8. first fire-starter flake - 185
9. nail - 180
10. nail - 192
11. nail - 192
12. " - 192
13. " - 210
14. EW bowl bottom - 203
15. " " rim - 21
16. nail - 145
17. lead musket ball - 202
18. nail - 202
19. EW bowl frag - 202
20. " " " - 202



144-1
10N (8W)
WF
3 Aug 2012

21 soapstone lump fragments (burned) decomposed -212

22. spike - 208

23 nail - 204

24 " - 206 (2 pcs)

25 nail - 188

26. iron sheet or blade - 180

27 iron cooking pot rim
fragment - 180

28. nail - 195

29. nail - 195

30 clunched spike - 185

31 nail - 187

32 " - 191

33. metal blade or sheet - 191

34 nail - 205

35 nail - 205

36 notched sandstone - 216

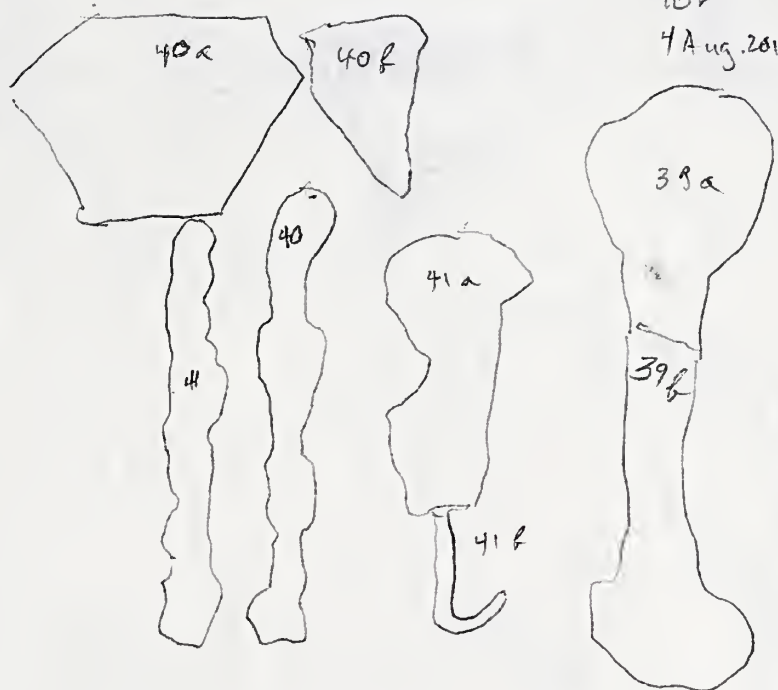
37 small nail

38 N. stoneware gray/grey base 216



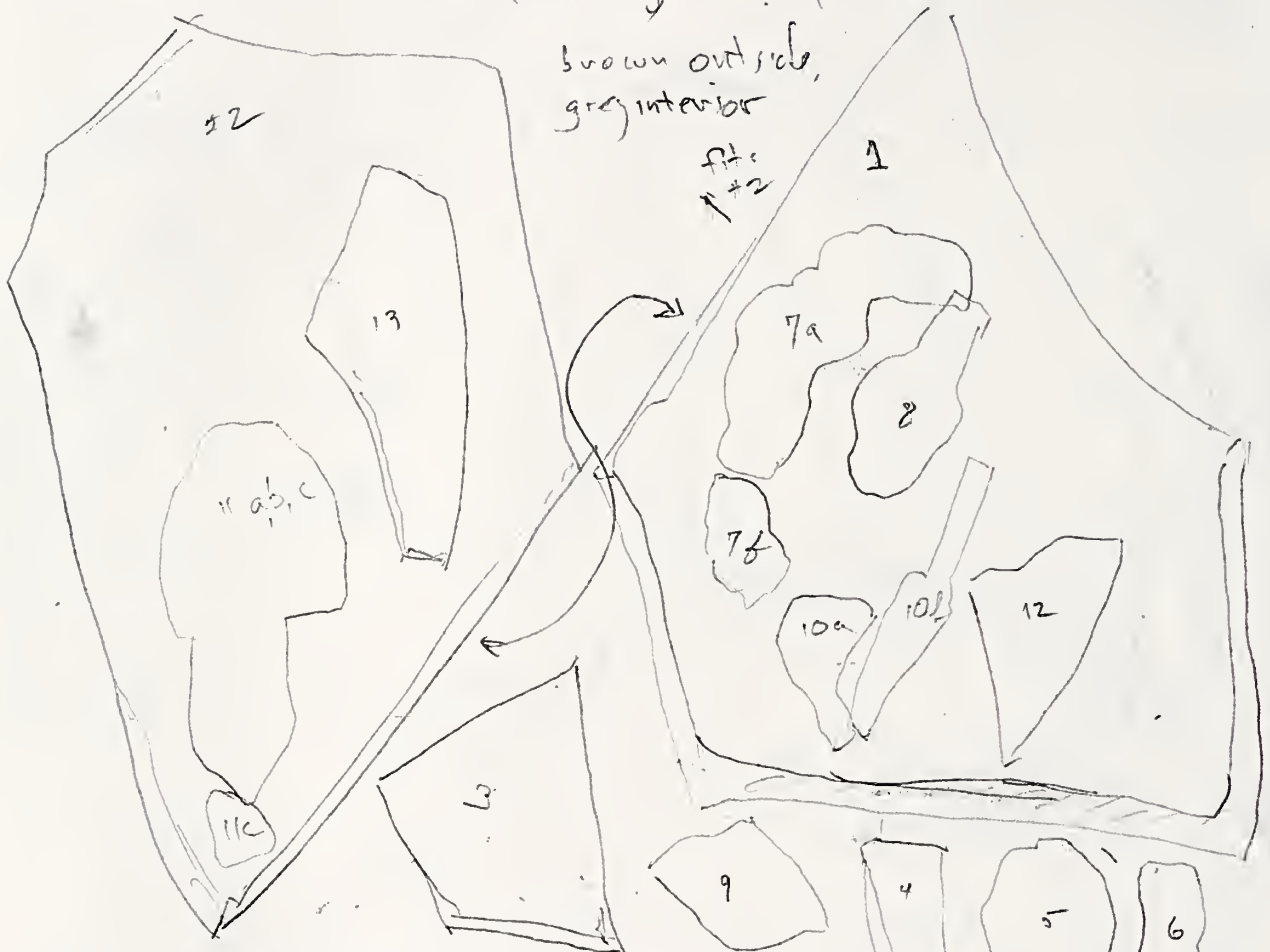
39. Nail (2 pieces) - 207
 40. 810 ceramic (2 pcs)
 41. nail - 220
 42. " - 220

HH-1
 16N 18W
 10F
 4 Aug. 2012



HH-1
10N 22W
Ritchie Co
7/29/2012

1. grey Normandy stoneware (bottom frag) in turf
2. " " " (side frag. " " (fits #1))



3. grey-green Normandy stoneware in turf

4. bubbly window glass - 226 (agua tint)

5. Nail - 229

6. " - 231

7. " - 232 (2 pieces)

8. " - 234

9. green bottle glass - 225

10. nail (2 pieces) - 226

11. " (3 pieces) - 221

12. bubbly window glass - 227 (agua tint)

13. N. Stoneware - 125 (grey/brown sub both sides)

14. iron spike (2 pieces) - 235

15. iron nail (2 pieces) - 235

19A nail.

14-1
10 N 22 W
Ritchie Bay
30 July 2012

16. nail - 222
17. " - 226
18. clenched nail (2 pcs) - 226 (possibly a wood plane blade)
19. Iron blade (?) - 226 with rust frags.
20. nail (2 pcs) - 232
21. " - 237 (4 pcs)
22. Nail - 236
23. " - 236
24. Yellow glazed Erit double-sided - 136 with glaze, crazed glaze
25. musket ball, lead - 240
26. N. stoneware - 232 grey/grey
27. " - 232 grey/brown (1)
28. nail - 230
29. N. stoneware - 234
30. Nail (2 pcs) - 235
31. Nail - 239 (2 pcs)
32. thin sheet of lead (2 pieces) - 237
33. Cornaline d'Aleppo bead - 237
34. Nail - 229
35. " - 239
36. Nail - 242
37. " - 231
38. N. stoneware - 226
39. E.W. plain - 227
40. blue bead, fenticular
41. nail - 244
42. " (2 pcs) - 248
43. " - 233
44. " - 236
45. " - 234
45. nail - 224 under pavement slab
46. nail - 228 (2 pcs)



44-1
 10N24W ✓
 Will Richard
 2 Aug 2012

1. N. Stoneware pot base - 251

2. Nail - 242

3. " - 242

4. " - 244

5. " - 244

6. " - 244

7. " - 244

8. Iron mass - 232

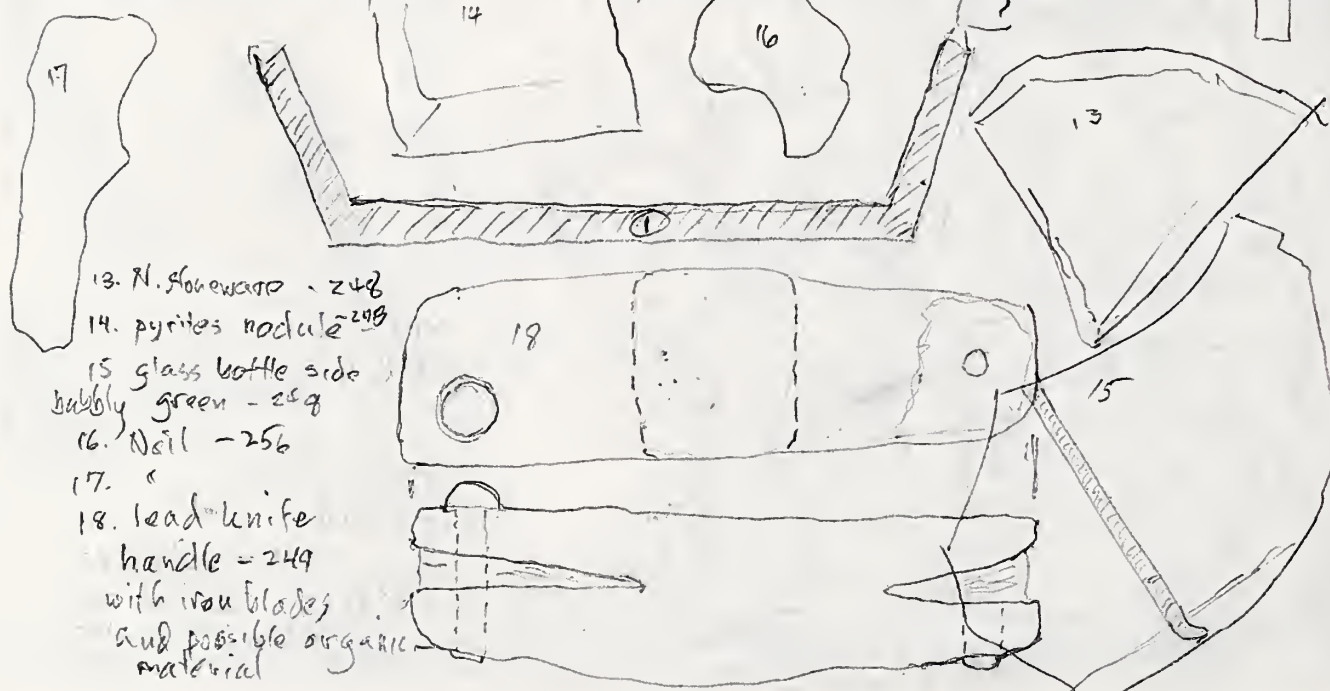


9. nail - 237

10. " (2 pcs) - 238

11. Lead musket ball - 246

12. grey/grey N. stoneware - 240



13. N. Stoneware - 248

14. pyrites nodule - 208

15. glass bottle side
 bubbly green - 258

16. Nail - 256

17. "

18. lead knife

handle - 249

with iron blades

and possible organic
 material

- 19 spike - 233
 20 nail (2 pcs) - 236
 21 " - 249

22 spike - 246

23 nail - 244

24 nail - 252 (2 pcs)

25 soapstone musket (25) - 253

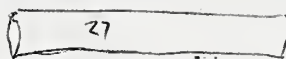
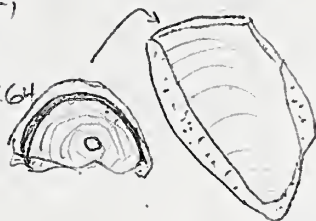
26 five pipe stems - 262

27 pipe stem under edge of boulder - 262

28 nail - 251

29 nail - 261

30 pipe bowl - 264

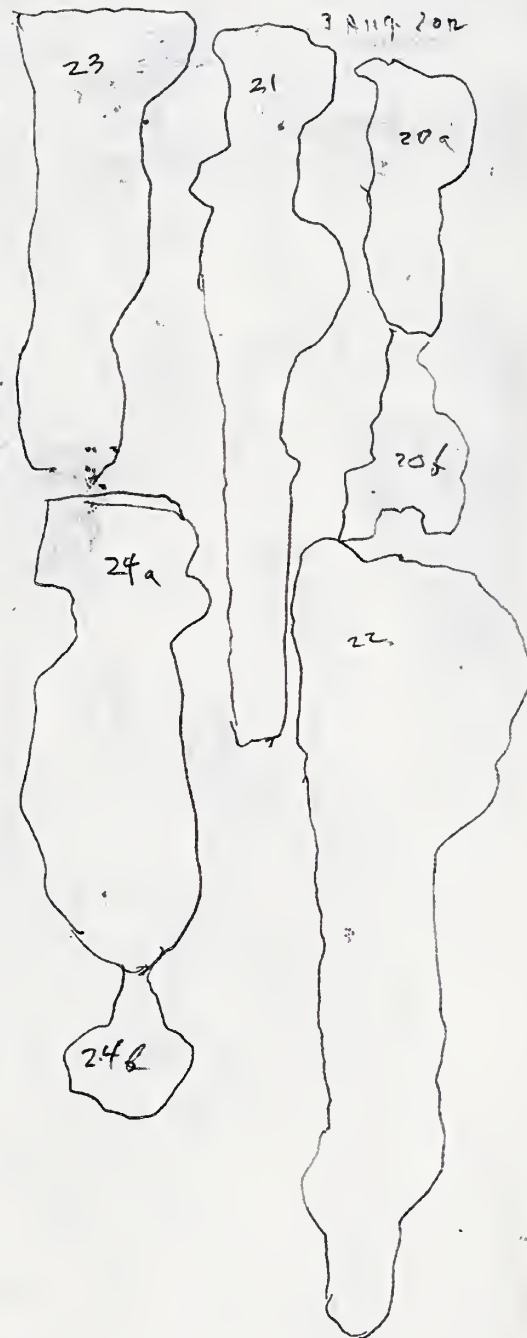


HH-1

10 N 24 W

10. Richard

3 Aug 2012



44-1
10N 260
Ritchie Run
3 Aug 2012

1. Nail -255 (2 pcs)
2. N. Stoneware -257
3. iron, flat piece -256
4. decorated pipe stem -259

5. nail -261 (2 pcs)
6. nail. 257
7. " 252

~~8. first fragment from fire starter~~

9. nail -180

8 nail -253 (nail cap)

9. spike -263 (2 pcs)

10 pipe stem -256

11. 2 lead bullet musket balls

12 nail -267

13. " -255

14. " -258

15. " -256 (2 pcs)

16 small nail -256

17 pipe stem -259

18 nail -257

19. iron knife blade (?) 260

20 " blade? -257 (2 pcs)

21 thick green glass

bottle base -256 with chipped edge for knife

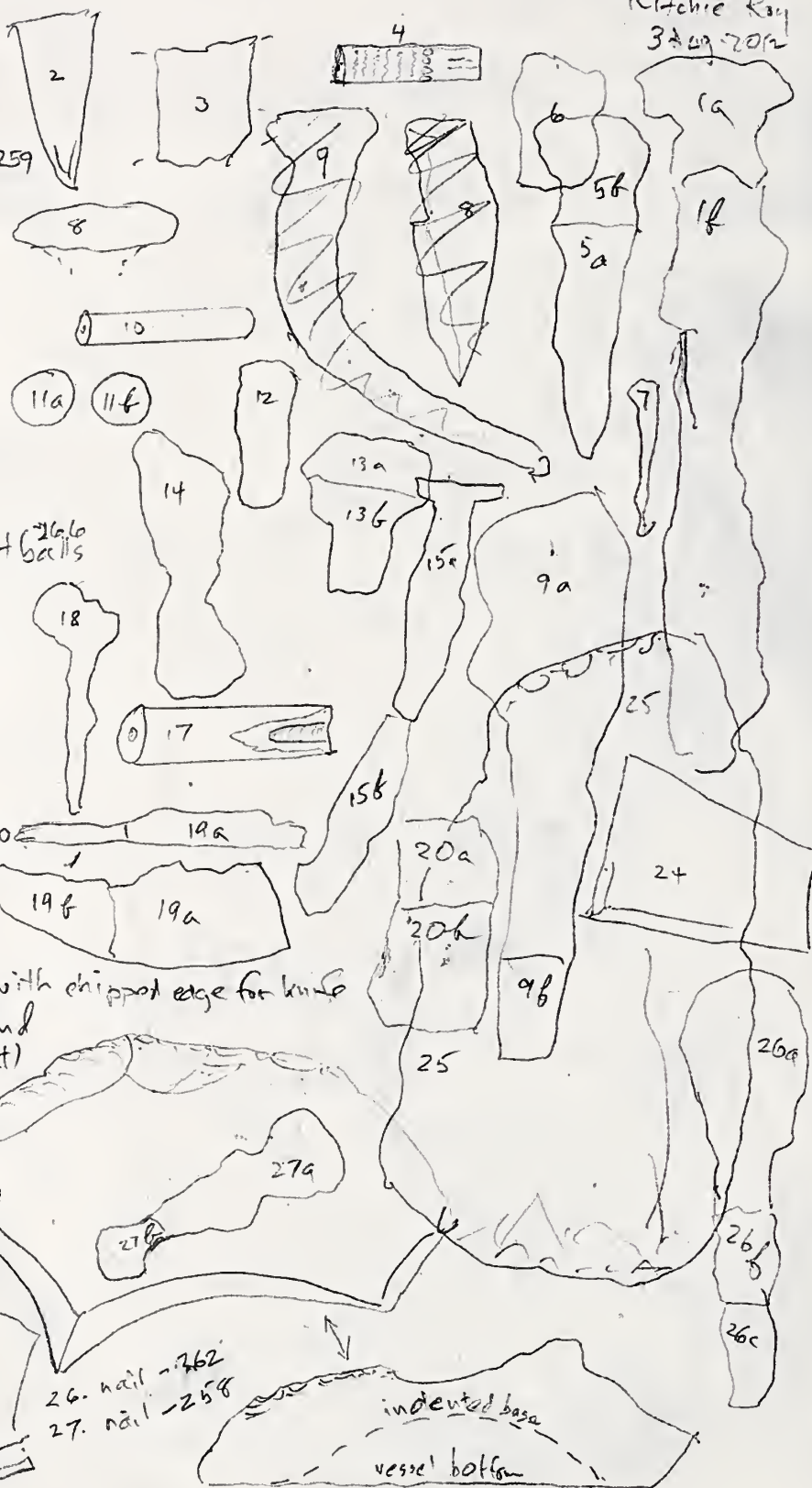
22. slate end blade, ground -257 (Thule or Dorset)



23 N. stoneware 254
very thin wall

24 N. Stoneware -273

(with 25 worked, battered quartz chunk -200-Kit?)



no elevations taken - datum too far away
(2 thin sheets hammered together)

42-1
28 28 EW
9 Aug 2002

1. sheet of lead -

2. EW

3. glaze EW (olive color)

4. EW chunk of
gray iron chert

5. EW

6. "

7. glaze fragment

8. EW

9. EW

10. spike

11. chert fragment
(bipolar technique)

12. chert flake -

13. " "

14. " "

15. " "

16. " "

17. white glaze EW (both sides)

18. 2 spalls of chert

19. nail in deep post hole 45 cm
20. nail " " " " below
surface
drill together

21. nail 35 cm below surface

22. EW 40 cm below surf.

23. EW 3 pieces

24. EW (5 pcs)

25. flint flake
about 9 cm
below surf.

26. nail - 250

27. pipe bowl - 247

28. nail - 252

29. nail - 252

30. EW - 250 not collected

31. lead sheet - 250 not collected

32. EW 25 cm from surf

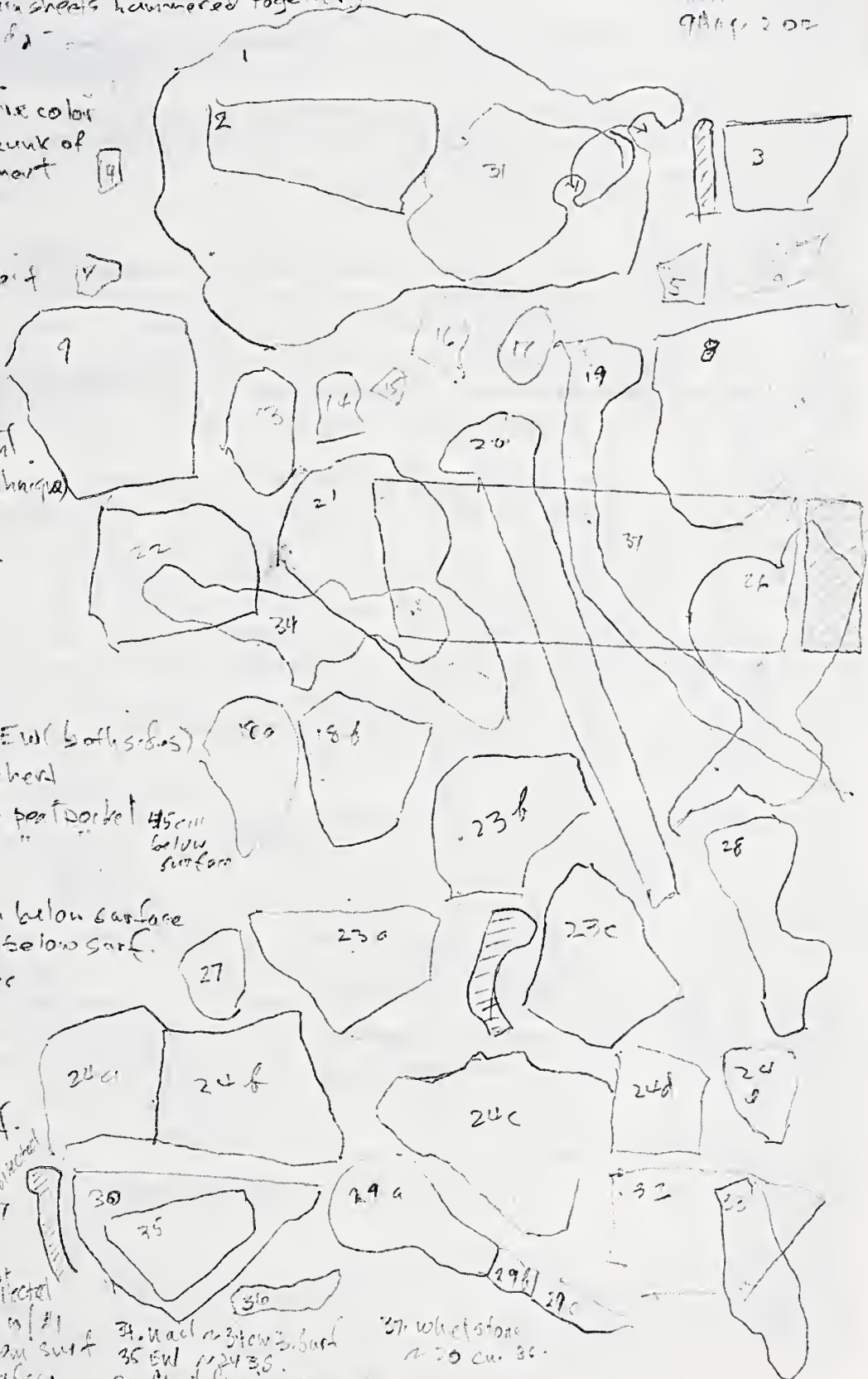
33. Nail 226 3.3 surf

34. Nail 234 3.3 surf

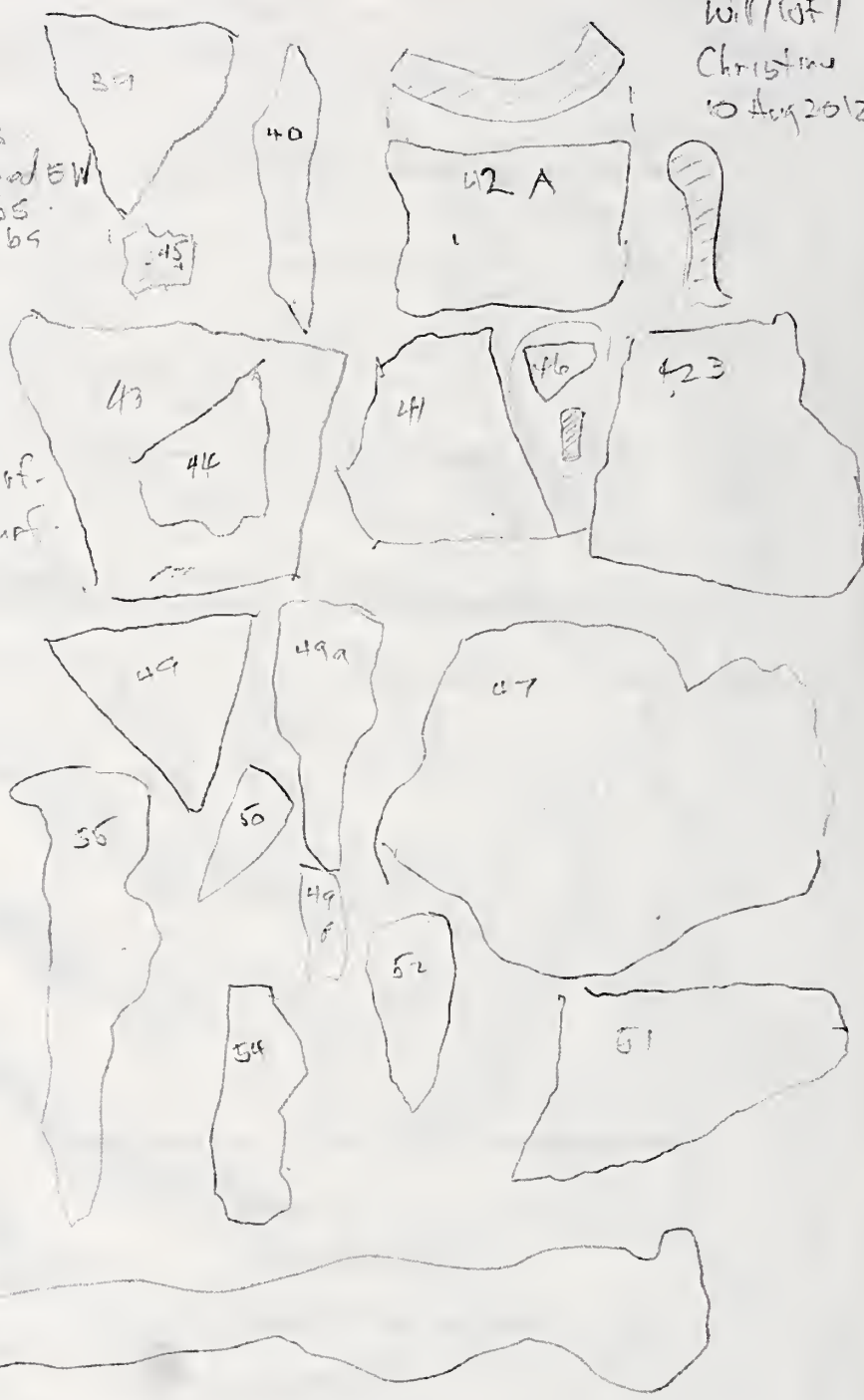
35. EW 124 3.3

36. flint flake - 179 cm

37. whetstone
20 cm 30.



38. 6 pcs flint flakes
 39 EW. 20 cm b.s.
 40 nail ca 25 cm b.s.
 41 yellow-orange glazed EW
 42 2 pieces EW. 30 cm b.s.
 43 EW 32 cm b.s.
 44 flint flake
 45 small bone fragment
 ~ 50 cm b.s.
 46 glazed EW - 42 b.s. surf.
 47 iron mass - 35 b.s. surf.
 48 nail - 34 b.s.
 49 EW "
 50 flint flake. 34 b.s.
 51 EW. - 35 cm b.s.
 52 nail
 53 spike - 40 cm b.s.
 54 nail - 32 "
 55 "



✓ HH-1
 25 810
 Will/WF/
 Christina
 10 Aug 2012

6 - Hare Harbor-1 Underwater Report

By Erik Phaneuf and Vincent Delmas

The 2012 field season of the underwater portion of the Hare Harbor-1 site marked the sixth season of exploring the submerged Basque remains associated with the terrestrial site of Inuit and Basque coeval occupation. The main goal of the underwater investigation is to gather as much information about the chronology and the stratigraphy of the site, particularly in association with the ballast stone piles. Furthermore, we attempted to corroborate artifact distribution around the stone piles to verify the relationship between ship positions above the ballast piles and refuse disposal. As always, we aspire to gather additional information making possible a better understanding of the life aboard the moored ship and the resources exploitation realised at the site, oriented not only on whale and cod transformation. Finally, we compare the underwater archaeological information with the terrestrial portion of the site. This multi-environment approach creates a more complete picture of the actual occupation of the site. Interestingly, when compared, each environment, the terrestrial and the underwater, though complementary, present two completely different pictures of the Basque maritime culture and occupation.

Methodology The 2012 underwater expedition at Hare-Harbour was realised between the August 2nd until the 10th by a team of 6 underwater archaeologists and Captain Perry Colbourne who once again left its daily duties on the *Pitsiulak* to pilot the diving skiff, manage the dredge and help with the reencounter of the surface gravity. This year investigation consisted of the excavation of 3 test units. The first unit, TPC3-1 was a four by two meter area, strategically placed directly north of ballast mounds Stone Pile-4. The second unit was TPD2-1, a two meter square operation place directly west of Stone Pile-4 and finally, test unit TPD-2-1, a one metre square, was positioned directly north of Stone Pile-3 totalising an excavated area of 13 m². Blessed with beautiful weather, water temperature ranging between 40 and 55 degree Fahrenheit and bottom visibility often surpassing 10 metres, the divers Erik Phaneuf, Vincent Delmas, Saraí Berreiro-Argüelles, Mathieu Mercier-Gingras, Marijo Gauthier-Bérubé, Christie Leece logged overall 68 dives totalising approximately 70 hours of combined bottom time.

Underwater excavating was realised using two water dredges constructed with polyvinyl chloride (PVC) pipes 6 inches wide creating an underwater suction apparatus using the ventury principal. The water pressure was supplied by two 5.5 horsepower HondaTM motor pump and 40 meters of 3 inches fire hose for each of the underwater dredge. At the depth of 15 feet and 25 feet, the pumps were mostly operated at half throttle in order to provide a better control of the removal of sediment. The bottom sediment, relatively compact in the upper stratum, was trowelled inside the mouth of flexible hose. The dredges spoil were inspected during and at the end of each dive since no screening of the sediments was made. Each test unit stratigraphy was recorded with a special MylarTM paper with regular pencil while using conventional terrestrial recording method. Finally, after each dive, notes and observations were gathered in a field journal by each diver.

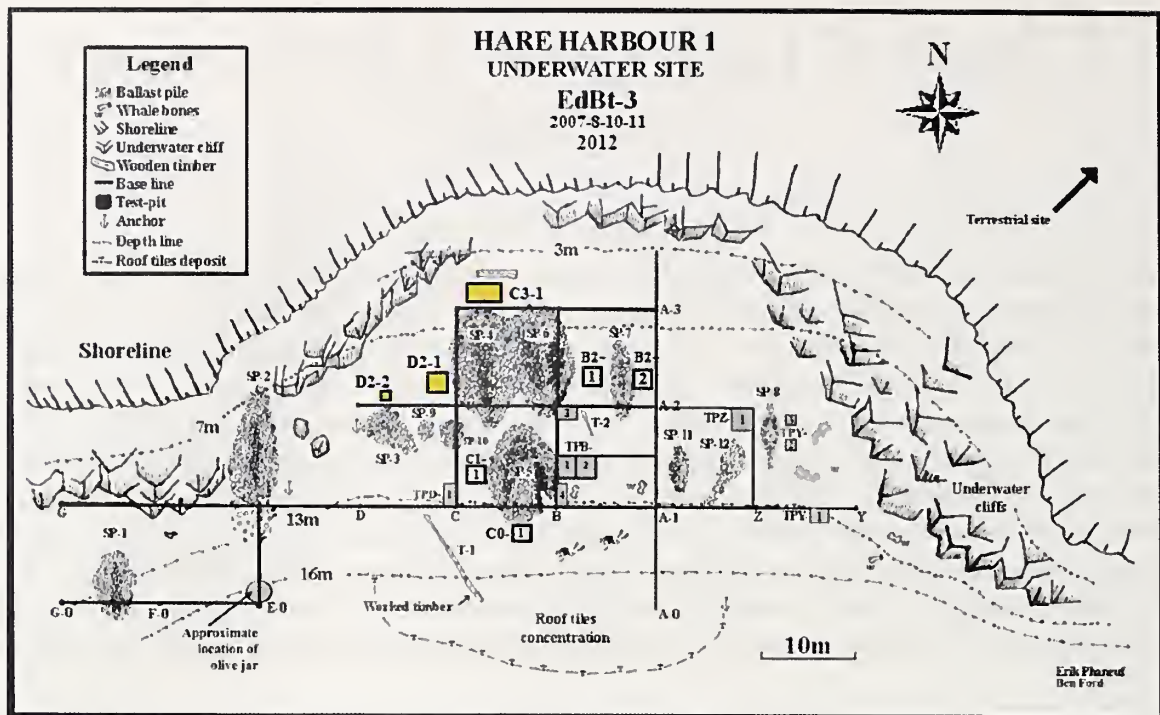


Fig 1.76: Underwater site plan with 2012 operations in yellow

Operation TPC3-1

TPC3-1 operation was situated at a depth of about sixteen feet, the shallowest excavation done so far. This rectangular area was positioned between a massive oak timber visible from the bottom surface and the northern limit of the ballast mound SP-4. Four different stratigraphic layers were observed during the excavation.

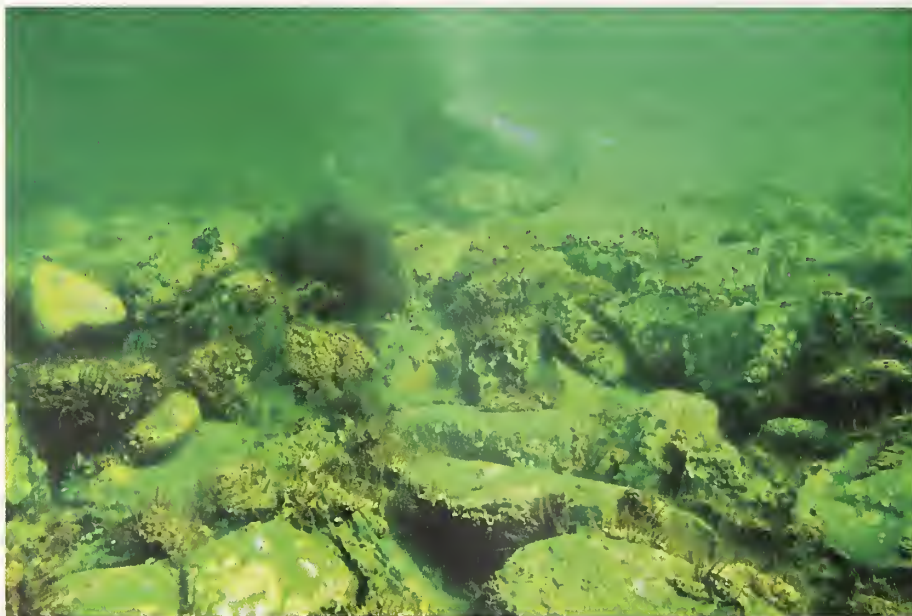


Fig 1.77: Top of ballast pile in SP-4 with diver excavating TPC3-1

The first layer (L1) averaging 5 to 10 cm in thickness was a surface deposit composed of a loose and soft grey brownish sandy matrix with occasional living and dead shells, some tile fragments, few small pebble stones and a couple of ballast stones were found unevenly distributed over the entire area. No artifact, beside roof tiles, was found in this layer.

Layer 2 (L2) ranged in thickness from 30 to 40 cm and was composed of a greasy and slightly compacted greyish silty matrix with some inclusions of burnt wood fragments, free ballast stones ranging from 10 to 15 cm in diameter and of numerous fragments of broken dead shells. Also rare fragments of roof tiles and

small clusters of codfish bones and ropes were found unevenly distributed within this layer and over the entire area of the excavated area. The interface of L2 and L3, for most of the southern portion of the TPC3-1 operation, was intertwining with the limestone ballasts of SP-4. The artifact collection from L2 included only one sherd of earthenware found in the western half of the square. The easterly half was barren of artifacts.

The only artifact from this layer was a non-glazed body sherd from a Sevillian jar or amphora. Already known to our site, it was also found in Red Bay and other Basque sites and is identified as Type RB1.1. The paste is pinkish to greyish with some ochre inclusions.

Layer 3 (L3) averaging 35 to 45 cm in thickness was composed mostly of organic material, mainly wood chips and flakes of different sizes, logs, sticks and bark mixed with pockets of sawdust and concentrations of heaps of peat and roots. Most of the ballast stones on the southern part of the excavated area rested within this stratum and when removed from the site, woodchips and sometime fishbone were found directly under them.

Stratigraphical observation of L3 seems to present concentrations which divide this organic layer in two portions with greater definition at the interfaces of the layer. In the upper portion or interface, we observed with-



Fig 1.79: Organic in L3 crushed under stone in the center of TPC3-1

in the concentration of branches, logs, barks and large wooden flakes, fragments of roof tiles, occasional pieces of rope in a very fragile state and small pockets of medium codfishes' spine and fins in anatomic position. In the lower portion or interface, we noted within the peat concentration, a greater amount of sawdust and peat roots as well as small pockets of medium size codfish bones in anatomic position. Spatial distribution of this layer also proved to be uneven with the easterly half of the operation richer in term of concentration of wood chips and artifacts. Bird bones seem to be evenly distributed. Artifacts found within the L3 layer in the westerly half of the operation revealed one sherd of ceramic, ropes, cod fishbone, bird bones and few pieces of leather representing

at least three different shoes. The easterly half proved to be richer as we get closer to the SP-6 ballast pile. The easterly half, and especially the southeast corner of the operation, amazed us by its richness with different kind of earthenware, fine earthenware, glass bottle fragments, two glass beads, a perfectly preserved forged iron nail, lead shots, a wooden bowl and plate, barrel hoops, an oak wedge, nut shells, variety of bird and fish bones and a killick anchor.

Interesting new objects testifying of the daily life have been discovered this year: glass beads possibly for trade, shotgun shells for hunting or self defense as well as small lead sheet that could be transformed into lead shot, the wooden handle of our first example of a knife and more leather shoes to enhance our collection.



Fig 1.78: The only artifact from L2, a non-glazed Sevillian jar sherd



Fig 1.80: One of many rope fragments still in situ



Fig 1.81: The usual coopering artifacts: the top of a barrel and a hoop fragment still attached

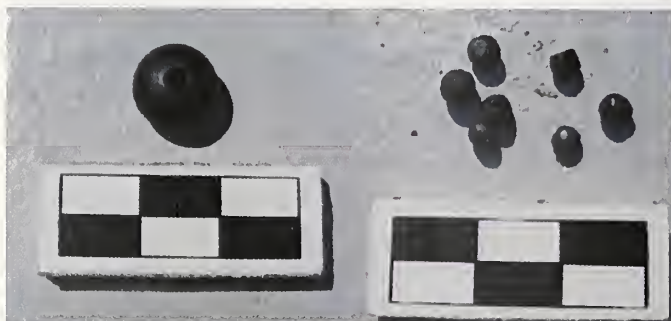


Fig 1.82: First time found on the site: glass bead and lead shot

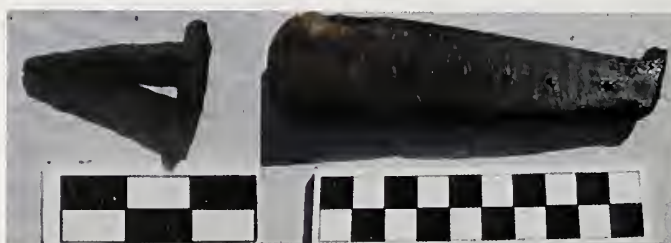


Fig 1.83: A complete nail and wooden handle of a knife

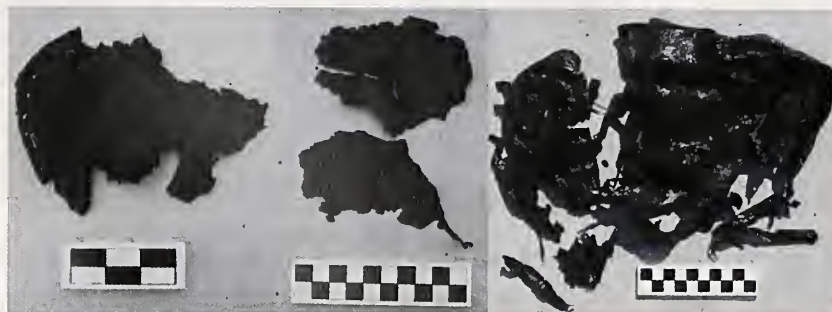


Fig 1.84: Leather shoes

The ecofacts found, such as bones, walnut, wooden bowl, wicker ring and ceramics vessels completed our vision of the daily lives of the sailors probably living on their vessels. Alimentation that we could find traces of was mostly composed of bird bones, fishes and mammals bones as well as different kind of nuts. It revealed a somewhat variety in the fishermen supplies.



Fig 1.85: Bird, fish, and mammal bones from L3 in TPC3-1



Fig 1.87: Wooden bowl in situ

The ceramics of L3 revealed, once more, the richness of this part of the underwater site and filled us with excitement every time we went down. One of the most diagnostic types of ceramic found in Hare-Harbour is the cooking pot decorated with stamped applied bands on their body. Such vessels are literally found in every Basque whaling sites excavated. More sherds of this type of ceramic were also found in TPD2-1 as it is described later on. The same can be said for storage jars (medium style) and aragones majolica.



Fig 1.86
Examples of
walnut, hazel-
nut (above),
and cherry pits
(left) in L3 of
TPC3-1



Fig 1.88: The first wicker erse found on the site; a second was found in TPD2-1

An important find for this year terrain is a handle from a majolica porringer in lusterware. Fragments of this type was found on the terrestrial portion of the site, but what really excited Vincent Delmas, our ceramic specialist, was the fact that similar examples were found at Red Bay as illustrated below.



Fig 1.89: Porringer handle from HH-1 site (top) with Red Bay lusterware from Muel, Aragon (EkBc-1-3329)

One of the most exciting discoveries of this year was to find the remnants of not one, but three almost complete chafing dishes composed of an orange paste and glazed inside and outside again found in the south easterly part of TPC3-1. Note the incised marks on the bottom and on the body of these objects, an especially the stars with five branches. It's interesting to note that similar star engravings were found on wooden pieces from the Red Bay wreck, excavated by Parks Canada.



Fig 1.90: Three chafing dishes found in TPC3-1

Finally, on the last day of excavation, we followed into the bank, four pieces of wood which stirred our curiosity. It is not without great effort and ballast stone displacement that we cleared a killick anchor. A killick is an easy to make wooden anchor using local rock as weight. Example of this type of anchor is still found nowadays on the shore of the Lower North Coast, Labrador and Newfoundland as our modern example photographed in Blanc-Sablon confirms.

Layer 4 (L4) was made of fine compact gray sand with inclusions of very small stones and many crushed shells. It did not yield traces of human occupation and no artifact was found in this layer.



Fig 1.91: The killick on the deck of the Pitsiulack (top) with an underwater view of the killick in situ (left). A modern example of a killick photographed in Blanc-Sablon (right).

Operation TPD2-1

This two 2 by 2 metre units was excavated west of stone pile SP-4 at its widest width. This location was chosen again to determine the relation that exists between the stone pile and the site stratigraphy, as well as to gain a better perspective of the cultural deposit beside the ballast mound in a central position of the underwater site.

Layer 1 (L1) was a surface deposit composed of loose sand, coarse shell fragments and occasional tile fragments found resting directly on the surface as well as within the matrix of about 5 to 20 cm thick. Along with living sea snails and other gastropods some pebble stones and small fragments of possibly broken ballast stones, less than 20 cm in diameter were found dispersed on the entire square area. The same can be said for roof tile fragments all ranging less than 10 cm in diameter.

Layer 2 (L2) averaging 20 cm in thickness was composed of a greasy and slightly compact greyish silt matrix with inclusions of many complete dead bivalve shells and numerous shell fragments. Also, fragments of roof tiles less than 15 cm in length and small clusters of fish bones, still in anatomical position, were distributed unevenly within L2 over the 2 meters square area. The occasional ballast stones ranging from 5 to 20 cm in diameter were also found unevenly distributed within the square but some found closer to the stone pile were often resting over the third layer directly

on wood chips or organic matters. The occasional wood chip is observed within L2 but is found in greater at its lower interface. It is within the superior interface of this layer that the bottom of a square alcohol bottle was found bearing a mark made of five points set in quincunx. More of this type of bottle was found directly lying on the bottom surface of the site and so far no identification has been made for this 5 points mark.

Layer 3 (L3) was composed of more than 50 cm of organic material made mostly of wood chips and flakes, with mixed pockets of sawdust, peat, and roots especially present at the lower interface. Again, most of the chips would seem to be the result of log-squaring. Most of the ballast stones rested within this organic matrix. The artifacts collected from this layer included hundreds of bird bones with at least one leg found in anatomical position with what seems to be grease left around the bone. Many fish bones and some small mam-

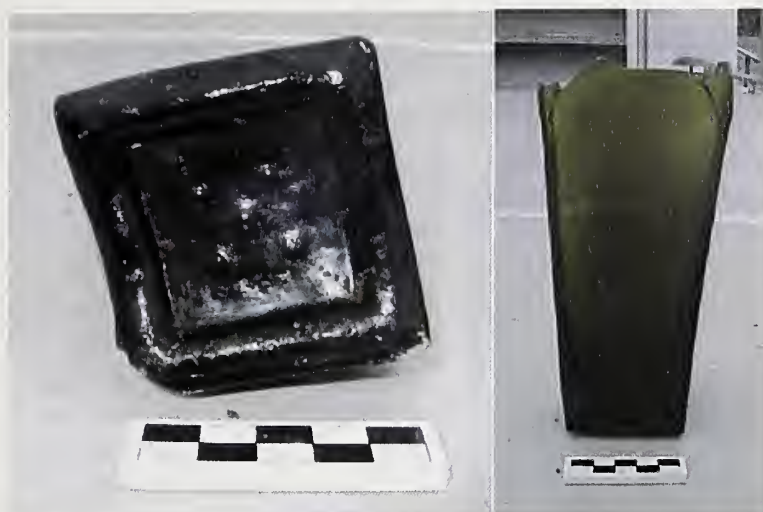


Fig 1.92: Five-point glass bottles from TPD2-1

mal bones were also found along with walnut, hazelnut half shells and cherry pits. This organic layer is present all around the stone piles but for the first time, numerous iron nails concretions were found within the matrix. Also unusual for this layer is the presence of nice blob of tree pitch and a small pyrite stone. Less present than usual were the sempiternal barrel hoops. Ceramic fragment were also common with more than 30 fragments coming from the same coarse earthenware pot and more element of the typical cooking pot decorated with stamped applied bands were found in this layer.

The last and fourth layer (L4) was made of fine compact gray sand with the presence of rare

angular stones ranging in diameter from 5 to 10 cm. This compact layer was excavated to less than 10 cm in depth. For the last 5 years, this layer never showed traces of human occupation.

Operation TPD2-2

This one meter square operation was set directly north of the ballast stone pile 3 at a depth of about 30 feet. It was excavated at the tip of the pile to verify if it would be as rich in artifact as the easterly half of the C3 operation. It wasn't! It did reaffirm the unwilling discovery made by Ben Ford in 2008 that further away we are from the center piles SP-4, 5 and 6, the poorer becomes the artifact collection as well as the thickness of each layer observed in the usual stratigraphy noted over the years of excavation.

The first layer (L1) was a surface deposit composed of loose sand, coarse shell fragments and occasional tile fragments found resting directly on the surface as well as within the matrix. It was observed to a maximum of 20 cm in depth.

The layer 2 (L2) is ranging from 10 to 15 cm in thickness was composed of the same greasy and slightly compact greyish silt matrix again observed with inclusions of many complete dead bivalve shells and numerous shell fragments. The only artifact, other than roof tiles, from this layer was a fragment of a glass bottle. The roof tiles were measuring less than 15 cm in length. As observed in other operation, this layer also present small clusters of fish bones, often representing one single individual.

The third layer (L3) was the usual organic layer already described in the previous operation. It's was 20 cm in thickness and its lower interface rested at 50 cm under the bottom surface. The usual cod fish bones, rope fragments, wood chips and flakes as well as the rooted peat clumps were observed mixed with the occasional



Fig 1.93: Typical Basque cooking pot with applied stamped band decoration on the body. The right pot example was found in TPB-1.

ballast stone less than 20 cm in diameter. The only thing missing was the presence of ceramics or other artifact since the customary ecofacts were all present.

The fourth and last layer was excavated for 10 cm within the matrix down to 60 cm under the bottom surface. It was the usual compact gray silty sand free of anthropic traces.

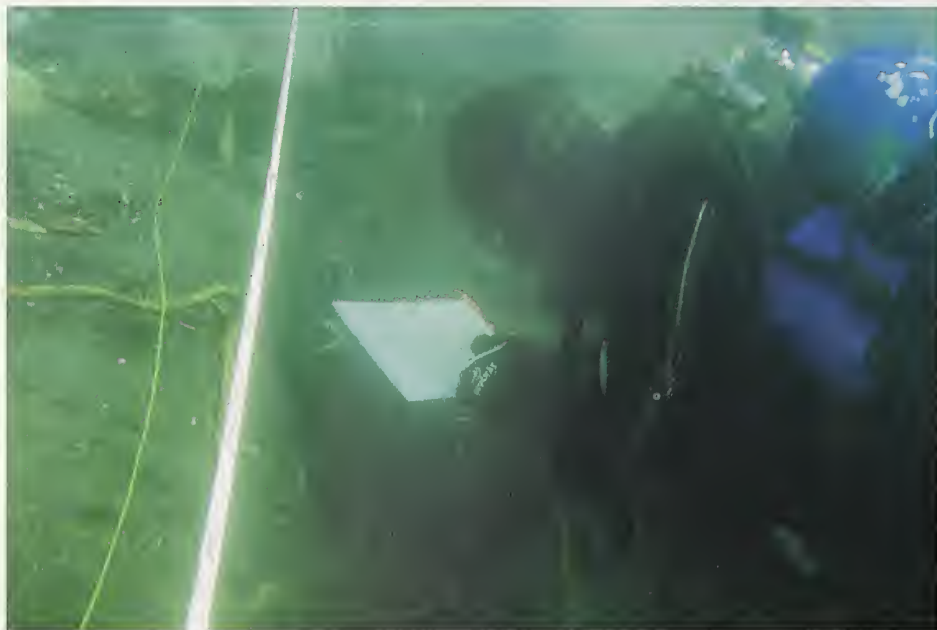


Fig 1.94: Sarai Berreiro-Arguelles drawing the stratigraphy of the northern wall

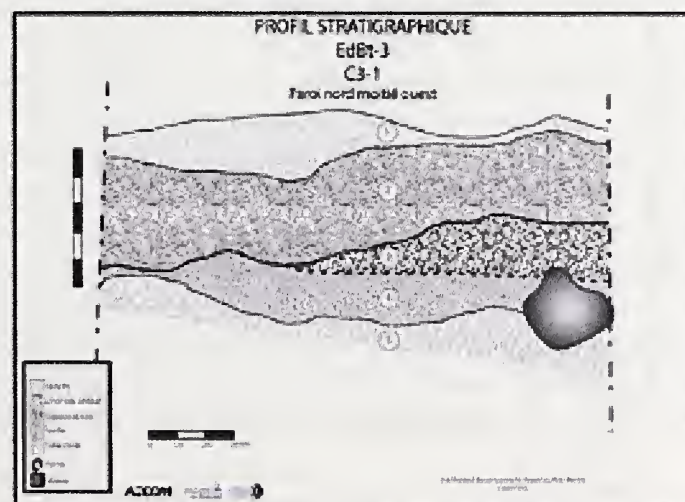
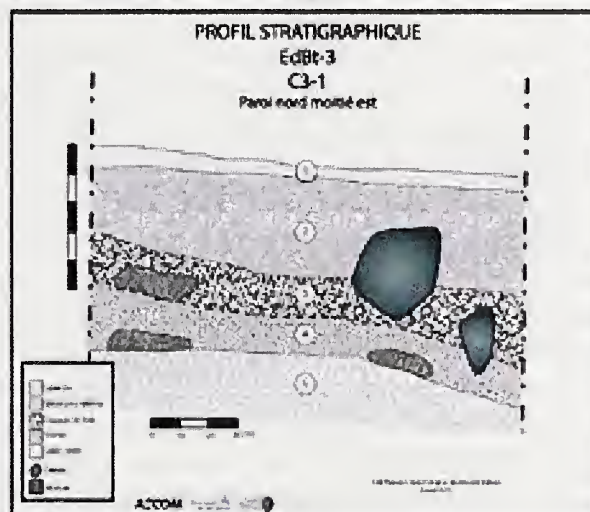
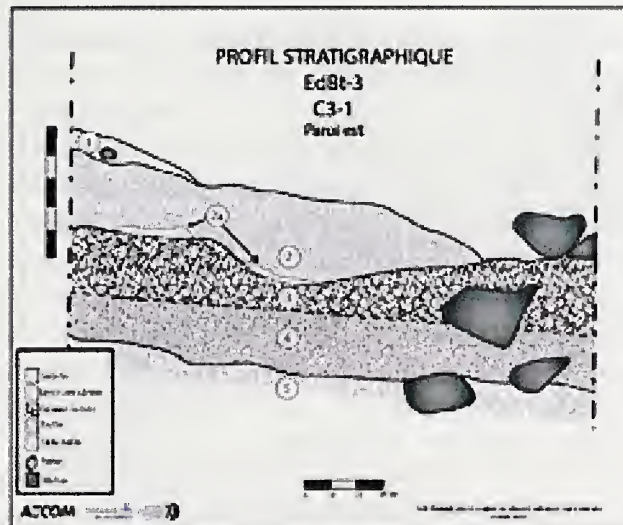
artifacts testifying to some of the trading activities and cooking apparatus that not even the Red Bay site can boast to have.

The organic layer always so rich in wooden chip, flakes and saw dust, can be found in almost every squares excavated during the last 5 field seasons. Varying in thickness, it is always tapering away from the center part of the main ballast piles excavated so far. It suggests an important clearing operation on land: timber squaring probably related to shore facilities. The log quartering activity was an important part of the early occupation of the site. Any terrestrial construction would need framing and the transformation of trees into frames would result in the production of a certain quantity of wood chips, flakes and sawdust. But the staggering amount of wooden chips found over the years would suggest more than just local construction and tends to indicate an actual economic exploitation and transformation of the wood resources available along the numerous rivers around Petit-Mecatina Island. Cooperage activity must also have been done on site, presumably for the transport of transformed cod. Again, this year, it is testified by the presence of barrel staves, wedges and hoop fragments made of red alder. No architectural element of small boat construction was found this year, but new to our collection are two wicker erses similar to the one found in the Red Bay project and a complete killick. The ceramic collection, embellished this year by three example of chafing dishes, along with typical Iberian peninsula ware some identical to the Red Bay collection, improve our and the terrestrial collection to refine the nature and the origin of the occupation. On a more personal level, the presence of glass beads, pyrite stones, wooden bowl, a knife handle, a possible playing chip and numerous shoes as well as hundreds of bird bone and to a lesser extend small mammal bones with less commercial fish bones, like ray fish, complete the underwater collection to enhance our comprehension of the daily lives of the occupants of the site. Once more, the flagrant dichotomy of the terrestrial and the underwater archaeological collection, with among other thing, the complete absence of Inuit presence underwater, proves the importance of this joined venture.

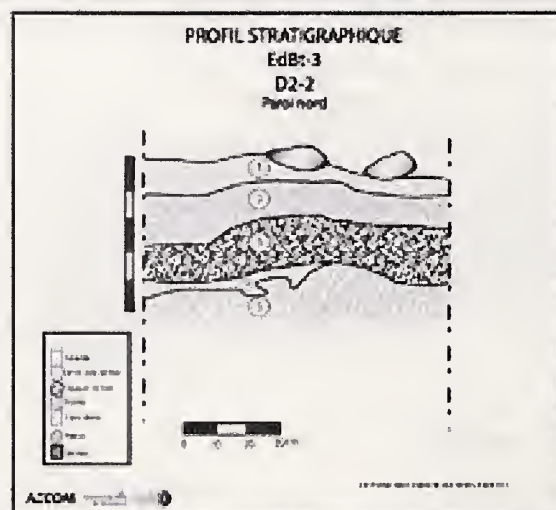
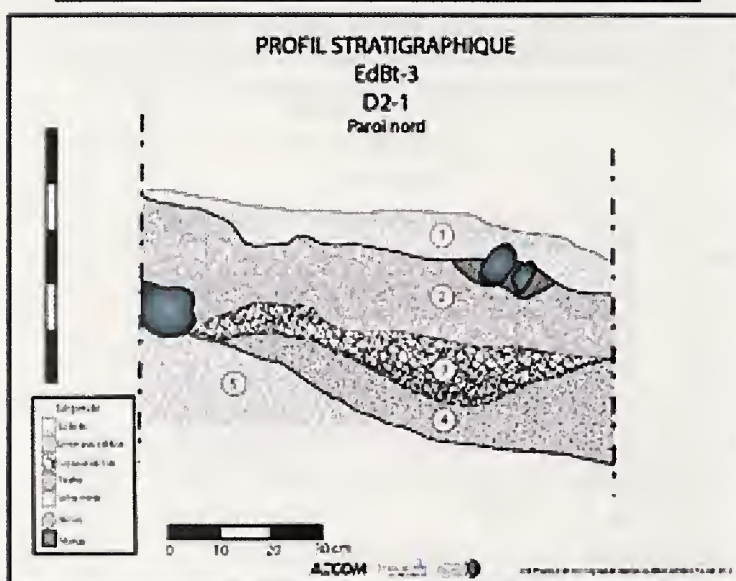
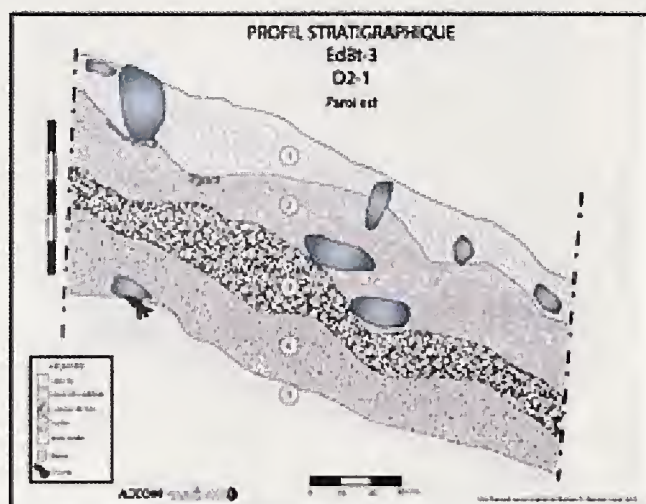
Conclusion

The artifact collection from the 2012 field project again testified to the several types of activities practiced on the site. Reasserting our interpretation from previous campaigns, we are reinforced in our reconstitution of the different activities that took place on this site. Remnants of desodding the terrestrial site are still present, sometimes finding actual square turfs of ground surface peat layers. Furthermore, quartering activity and possible remnants of onsite coopering was also found within the organic layer present in all the operation. New this year, were ar-

Hare Harbor (EdBt-3 C3-1) Underwater Profile



Hare Harbor (EdBt-3 D2-1, D2-2 Underwater Profile



5 - Summary of 2012 Little Canso Island -1 Excavations

Little Canso Island-1

Background In 2011, Nick Shattler of St. Augustine alerted us to a site he found on Little Canso Island in the southeastern entrance of Jacques Cartier Bay. Nick has been interested in learning about Inuit history and occasionally has joined our survey team for a few days each year as we passed through St. Augustine from our field sites further west. I told Nick to keep his eyes peeled for stone fox traps, tent rings with rear sleeping partitions, and rectangular sod house foundations with long sunken entrances. In 2011, he showed me a site on the eastern end of Little Canso Island whose three house foundations had entrance passages, cache pits, and was located near sites with stone fox traps and boulder caches. That summer we tested the site and confirmed it was an Inuit winter village dating to the late 17th or early 18th C. In addition to its Inuit architecture the site contained Basque roof tiles, Normandy stoneware, iron nails, and faunal remains. The site was located in an area of the LNS where historic records document Inuit presence in the early 18th C. and was geographically between Inuit winter sites we had previously identified at Brador, Belle Amour Peninsula, and Petit Mécatina. The records also note other Inuit settlements in the vicinity of Ha! Ha! Bay near La Tabatière, but their location remains unknown.

Location In 2012, we returned to LCI-1 for three days and excavated House 2, the middle and largest of the site's three dwellings, at 51° 16.623' N, 58° 15.122' W. House 1 lies a few meters to the north, and House 3 is 10m to the south. All three dwellings have entrance passages facing west toward the hill that rises a few meters from their entrances. The site is covered with grass, Canadian Burnett, crackerberry, blackberry, and other tundra plants and low shrubs commonly found on dry sandy soil. The site is bounded on the east by a small cove on the west side of the channel between Canso and Little Canso Island. This channel is navigable by small boats at high tide but dries out at low tide. The Canso islands are close to the winter ice edge and on the route of the annual fall harp seal migration. Caribou, black bear, and small fur-bearers would have been available around the shores of Jacques Cartier Bay. In spring, summer, and fall flocks of ducks, geese, and waterfowl are available, and fish can be obtained throughout the year. Excavation produced a large amount of faunal remains among which caribou and seal were most prevalent. No baleen and only a few pieces of whalebone were present.

The site had been constructed on a dune at the western end of the isthmus built from sand blown up from the beach. As sand accumulated, vegetation periodically stabilized the surface until a new sand layer developed, resulting in alternating layers of sand and peat. When the Inuit constructed their houses they excavated into the dune, cutting through the layers and building up mounded walls around the houses.

Excavation Using the datum established last year, we set up a datum triangle 40cm above ground surface a meter north of the highest point on the east (rear) wall of House 2 and gridded out the interior of the house so that three 2x2m squares fell inside its walls. We did not have time to excavate beyond the house floor margins. Six units covered most of the house interior; a 2x0.5m trench was cut through the rear wall so we could obtain a wall profile; two and three-quarter 2x1m units were excavated along the northern wall to observe the extent of the house floor in that direction; one 2x2m unit was excavated north of the entry portal; two 2x2m units south of the entrance tunnel, and three 2x2m units covered the entry passage and its opening to the west. Excavations recovered ca. 125 artifacts, about half being nails or spikes used for wood floor and roof timber construction. Five gallons of bone was collected from a midden deposit south of the entry passage; there was no midden outside the house entrance. A few pieces of worked whale bone were recovered, but none was present as structural members of the dwelling. Log timbers must have been used for the house and entrance passage roofs, but their remains were not preserved.

Stratigraphy Site stratigraphy was simple and straight-forward. Beneath the surface vegetation and humus were a few centimeters of wind-blown grey sand representing post-occupation soil formation. In areas not disturbed by house construction, there were thin alternating layers of peaty humus and wind-blown sand. Inside the house a peaty layer beneath the upper grey sand probably represents the remains of the house roof and its timber, skin, and sod components. Roof nails were therefore often the first artifacts encountered under the sod. Beneath this in areas of the sleeping benches a second dark zone represents the charcoal-stained cultural level that contained nails and only a few other artifacts. Below this level was sterile sand with occasional lenses or pockets of humic or charcoal-stained soil from intrusions or disturbed soil levels. On the paved floor surfaces the upper grey sand level was underlain by a level of sandy fill blown in from outside and contained few artifacts. This level was underlain by a few centimeters of charcoal-stained cultural deposit that rested directly on the floor pavement and contained most of the house's artifacts. On the sleeping benches this second layer was quite thin, but it was the principal location of artifact finds.

House Features The sleeping benches were found on the north and east sides of the house, with a possible third bench along the south side of the house. The largest bench, about 2m wide and six meters long, was at the rear of the house along its eastern wall. A smaller 2m bench paralleled the northern wall, and a third lay along the southern wall. However, not having time to excavate all of the sleeping platform surfaces to the point where they intersected the undisturbed dune sands made it difficult to ascertain the precise boundary of the exterior parts of these benches, and particular the bench on the south side of the structure. For this reason we are not certain that units 20S/8-10W were a third sleeping bench or were outside the house wall. Stratigraphy in the south walls of these squares show strata breaks at 22S/7W and 9W. The concentration of midden bone beginning west of 9W suggests the south wall ended here and turned north, connecting with the entryway. Few artifacts (mostly nails) were found on the sleeping platforms, suggesting these surfaces may have been covered with wood planks. A low retaining wall of vertical slabs edged the front edges of the eastern and northern sleeping benches, and the remains of a whale bone retainer was set into the upper front edge of the bench in 20S/4W.

The house contained three hearths: Hearth 1 in 14S/10W consisted of a meter-wide ring of cobbles in an alcove on the south side of the entrance passage. Fire-cracked rock and charcoal indicated extensive use of this hearth, but no blubber stains were present. Alternative layers of charcoal and sand was also present in a 20cm deep deposit on the entry passage floor near this hearth. Hearth 2 at 20S/6W was a loose pile of rocks on the house floor in the northeast corner of 20S/6W. Some of the upper rocks in this pile had oil lamp stains while the bottom rocks rested on a layer of charcoal directly on the floor pavement. Hearth 3 was in the center of the house between the sleeping platform and the entryway and when excavated consisted of two large rocks standing vertically on the floor pavement, also resting on a charcoal layer. A third rock, which when standing upright would have completed a U-shaped feature, was lying on its side to the east of the standing rocks. A soapstone vessel bottom fragment was found in this feature.

Interior Floor The interior of House 2 was paved with flat slabs of granite and other hard rocks. Attention had been paid to fitting these slabs carefully so they covered the sandy basal soil below. This floor was flat and generally about 110-115cm below datum. Some disturbance of the pavement inside the doorway was evident, as some of these paving stones did not match up; some were missing and others were found at different levels. A large triangular slab immediately east of the door was canted at an angle down into the passage, between the door-post rocks. Whether this slab was in its proper position is unclear. If so, the door did not have the vertical cold trap entry slab usually found in Inuit winter houses.

Doorway The doorway also seems to have been altered or deranged after the house's abandonment, for the stone door posts and lintel stone were not in their usual positions. A stack of square stones on the north side of the door seems in original position, but those on the south side were positioned further west than normal, and the only stone large enough to have served as a lintel was resting in a vertical position where the southern door-post should have been. This made it difficult to reconstruct the original doorway and cold trap. Possibly a timber lintel had been used to span the doorway. In any case we could not reconstruct the doorway with assurance.

Entrance Passage and Floor Levels West of the doorway was a 7m long semi-subterranean entrance passage which was paved with perfectly-fitted slabs, and in most places slabs or boulders lined the lower parts of the passage walls. The inner end of the passage was 75cm wide, opened to about 1.5m near the cooking alcove, and was about 80cm wide at its western entrance. Here the elevation of the slab pavement was ca. 80cm below datum. The center of Hearth 1 was ca. 90cm b.d.; the passage pavement adjacent to it was ca. 100cm b.d.; the inner passage pavement near the door, 124cm b.d. Great care had been given to selecting and fitting the paving stones in the entryway, and to the establishment of proper floor levels. Rising from the 124cm at the entryway door, the central floor of the inner house pavement lay at 115cm b.d.; the north floor, 110-120cm b.d., the south pavement, ca. 110 cm, b.d., the south platform, 93; the central rear platform, 103, and the north platform, 107.

Midden Unlike most Inuit winter dwellings, this house did not have a refuse midden outside its entry passage. Instead, while exploring the southwestern part of the house we began finding large numbers of animal bones west of 9W. The bones were found immediately beneath the upper grey soil. In addition to many bones of caribou (many split for marrow extraction, and worked antler), seal bones and whale bones were found here. Most artifacts from the midden were nails, but a whale bone sled runner and a sherd of thick earthenware pottery also came from the midden. The total depth of the midden deposit was not more than 10-20cm.

Excavation and Finds Excavation began at the eastern side of the house, in the rear sleeping bench area. Some of the artifacts found here (mostly nails) were in the upper humus /grey sand zone and probably came from objects in or on the roof. Others, in the lower occupation level (goblet glass), were from the bench level inside the house. But very few objects were found here, presumably because this area was a sleeping rather than a work area and had been covered by bedding. Most artifacts inside the house came from just above the floor pavement, and were most common along the front of the sleeping platforms. Very little food bone was found on the house floor, and, surprisingly, no bone and only a nail and an iron rod were found in the entry passage. Other than nails, artifacts included parts of at least three soapstone pots or lamps (one in Hearth 3), probably not more than three vessels of Normandy stoneware, two fragments of thick earthenware, a green-glazed earthenware vessel handle; a small number of roof tiles, several pieces of thin goblet glass, remnants of several iron knife or point blades, an iron (harpoon?) shaft and a iron boat hook, rolled pieces of lead and copper sheeting, pyrites, the tip fragments of two whale bone harpoon foreshafts, a whetstone, a whale bone sled runner, a bone or ivory bead, and a flake of Ramah chert (probably from a previous Dorset component at the site). Part of a wooden spoon was also recovered, but it was too poorly preserved to save. Organic preservation was poor over-all and was only moderately good in the midden, whose bones were predominantly of caribou with only minimal amount of seal; the cultural material from the midden consisted mostly of nails and a sled runner. Most of the caribou long bones had been cracked for marrow extraction. A small number of caribou and whale bone had been worked into scrapers. The surface of one bone had been cut with many short incisions made with a sharp knife and a large chunk of whale bone had a series of fine cuts across one face. No art or illustrative designs were found.

Comparisons Compared to the Hare Harbor Inuit site, Canso Island-1 had few roof tiles and large spikes, no glass beads or ornaments other than a single ivory bead, and stoneware and earthenware were present only as a few vessels. Only one musket ball was found. Like HH-1, LCI-1 had soapstone vessels and pieces of rolled copper or lead that were probably part of jigger hooks. Otherwise, fishing equipment was not represented, while evidence of harpoon hunting was present. Also missing at LCI was a large, artifact-rich midden. Economically, LCI appears to have been focused more on terrestrial fauna (primarily caribou), but fishing and sea mammal hunting are also represented in the artifact and bone collections. Whale bones were present but the lack of baleen makes it unlikely that whales were hunted actively; more likely, whale bone was salvaged from drift whales. This site seems to have been more remote from contacts with Europeans than Hare Harbor and was occupied for a shorter period of time. The relatively limited number of artifacts, absence of an extensive midden, and thin cultural deposits on the house floor and entryway also suggest brief occupation. The presence of Normandy stoneware and glazed earthenware and types of spikes and nails suggest early 18th C., approximately the same period as Hare Harbor. LCI House 2 was probably occupied by an extended family of 10-15 individuals. The adjacent dwellings, Houses 1 and 3, are smaller and less well-defined on the surface. Presuming that all three houses would have been occupied simultaneously, the total population of the settlement probably was 30-40 individuals. Most other Inuit settlements in southern Labrador and the Gulf are also three-house settlements.

One may probably reconstruct the social nature of the settlement as a pioneering Inuit foray into the northern Gulf from Cartwright or other locations in southern Labrador in the late 1600s. In establishing a permanent settlement in Jacques Cartier Bay these Inuit probably banked on cooperation from other Inuit settlement group and support in managing their relations with the Basques and other Europeans, and the Algonquian-speaking Innu who lived on the interior and along the shores west of Cape Whittle. Acquiring food and settlement territory was only one aspect of survival on the Lower North Shore. Hostilities with others would have always been likely, which is why the Inuit move into the Gulf may have been a carefully staged operation rather than a sporadic, opportunistic enterprise by a few families. At least the backing or encouragement of some of the European groups operating in the Straits and eastern Gulf would also have been required, since the Inuit by the late 17th century had already become accustomed to the use of guns, iron knives, nails, and other materials, many of which are found in the LCI-1 collection. An important difference between HH-1 and LCI-1 is that the former was full of European objects and must have been occupied with Europeans or in close association with them, while LCI appears to have had more limited access to European goods.

Little Canso Island - 1 (EhBn-9) Maps



Site Name: Little Canso Island

Borden Number: EhBn-9

GPS: N51 16.045', W58 15.191'

Map Ref.: Shekatika 1:50 000

number is 12-O-8

Culture: Inuit

Tentative Dating: 17th - 18th C

Areal Extent of Site: 40x100 meters

Site Type/Seasonality: Sod house winter village

Site Location: On the east side of Little Canso Island, in a grassy area just west of the island's connecting bar with Canso Island, only a few meters above sea level.

Description of Site: Three sod house foundations, rectangular in outline, with 6-8m long entrance passages. Some indications of rear and lateral sleeping benches, and internal hearth platforms. Site is entirely intact with no obvious disturbance. Some indication of a thin midden outside the entryways.

Fig 1.95: Little Canso Island-1 (EhBn-9).

Nature of Soils/Sediments: Sandy, well-drained.

Vegetation Cover: grass, berry bushes, and a small patch of ground willows

Raw Materials: Basque tiles, iron, bone

Collection Procedure: Test pits excavated by trowel.

Samples Taken: small number of artifact samples

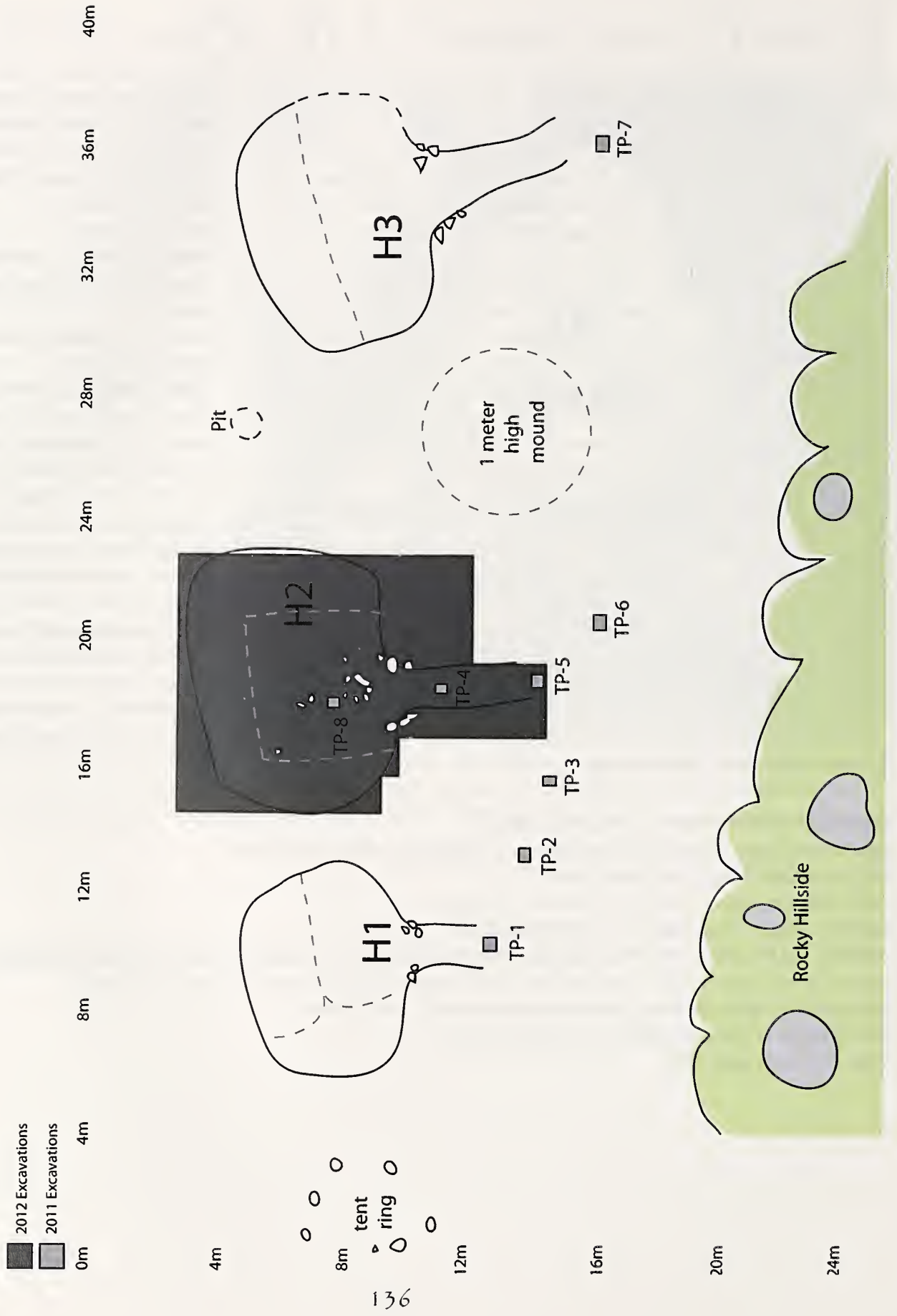
Potential for Further Work (# of Squares, Depth of Deposit?): excellent. Short one-season occupation by a group of Inuit hunters and fishermen. The site is undisturbed and would be easy to excavate.

Color slides: digital photos of structures, surroundings and artifacts.

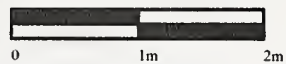
Surveyed by: William Fitzhugh, 2012 Pitsiulak crew.

Date: 14 - 16 August 2012.

2011 & 2012 Little Canso Island-1 Map



Little Canso Island-1 (EhBn-9)



House 2 August 2012
Rock Map

DATUM 5.1m abv high tide



0 1m 2m

House 2 August 2012
Overall Artifact Map

165 185 205 225

4W

6W

8W

10W

12W

14W

Possible Sleeping Platform

Mouse nest with babies

Hearth 2

Hearth 3

Reconstructed Lintel

Concentration of mammal bones

Hearth 1

Ce

Cn

L

WB

B

I

pyrite

1 sphere w/ nail or pyrites

2 wooden spoon frag

3 copper sheet

4 copper ornament

5 bone bead

6 grindstone

7 whale bone sled runner

B stemmed point

lead wrapped spike/nail

lead object

iron rod

whalebone

bone

whale bone tool

bone tool

earthenware

normandy stoneware

goblet glass

chert flake

soapstone lamp/pot fragment

roof tile

nail w/o orientation

iron spike

iron knife

iron

pyrite

0 1m 2m

House 2 August 2012
Ceramics and Glass Map

DATUM 5.1m abv high tide

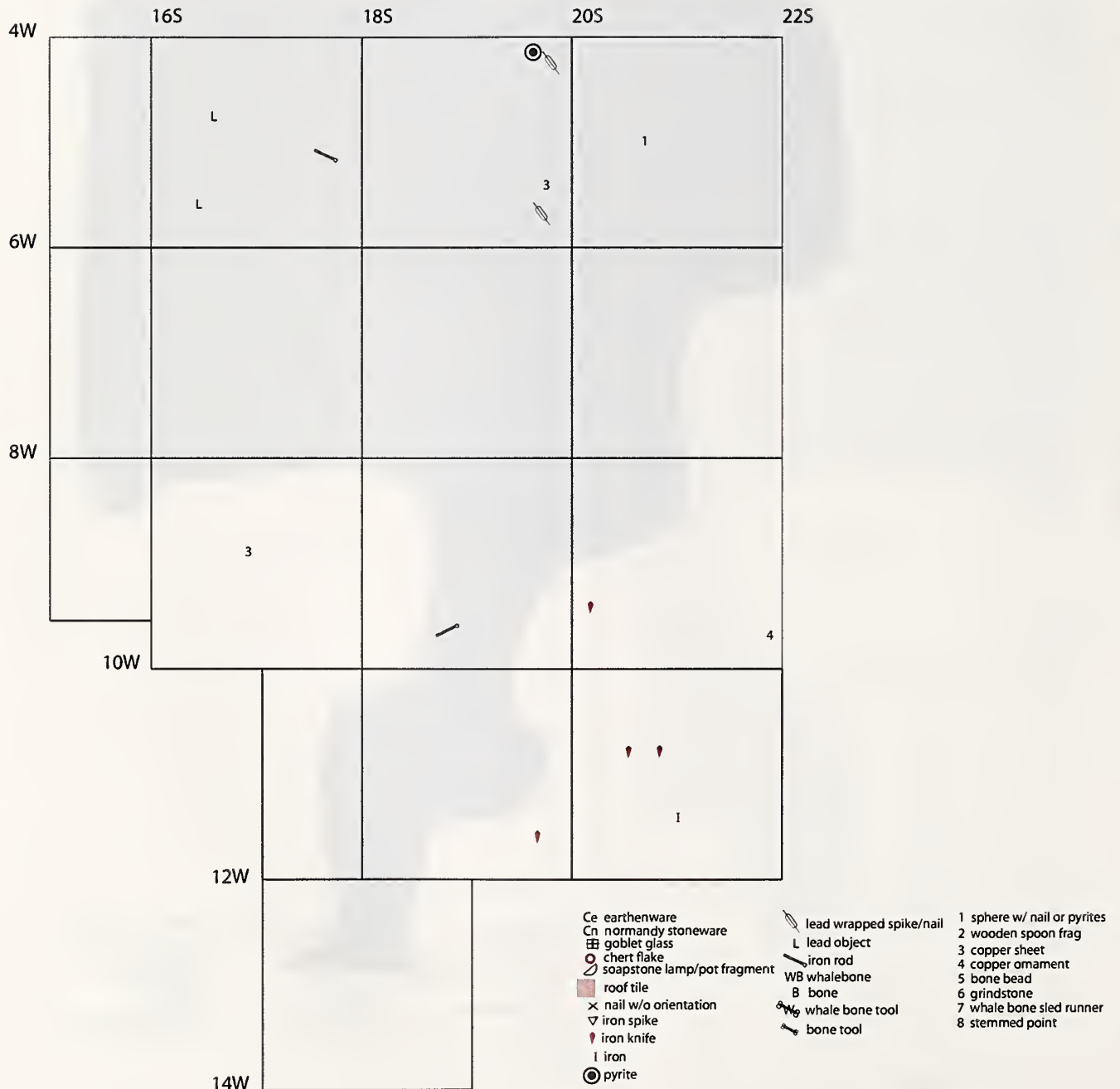


Little Canso Island-1 (EhBn-9)

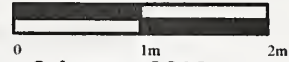


House 2 August 2012
Metal (excluding nails) Map

DATUM 5.1m abv high tide

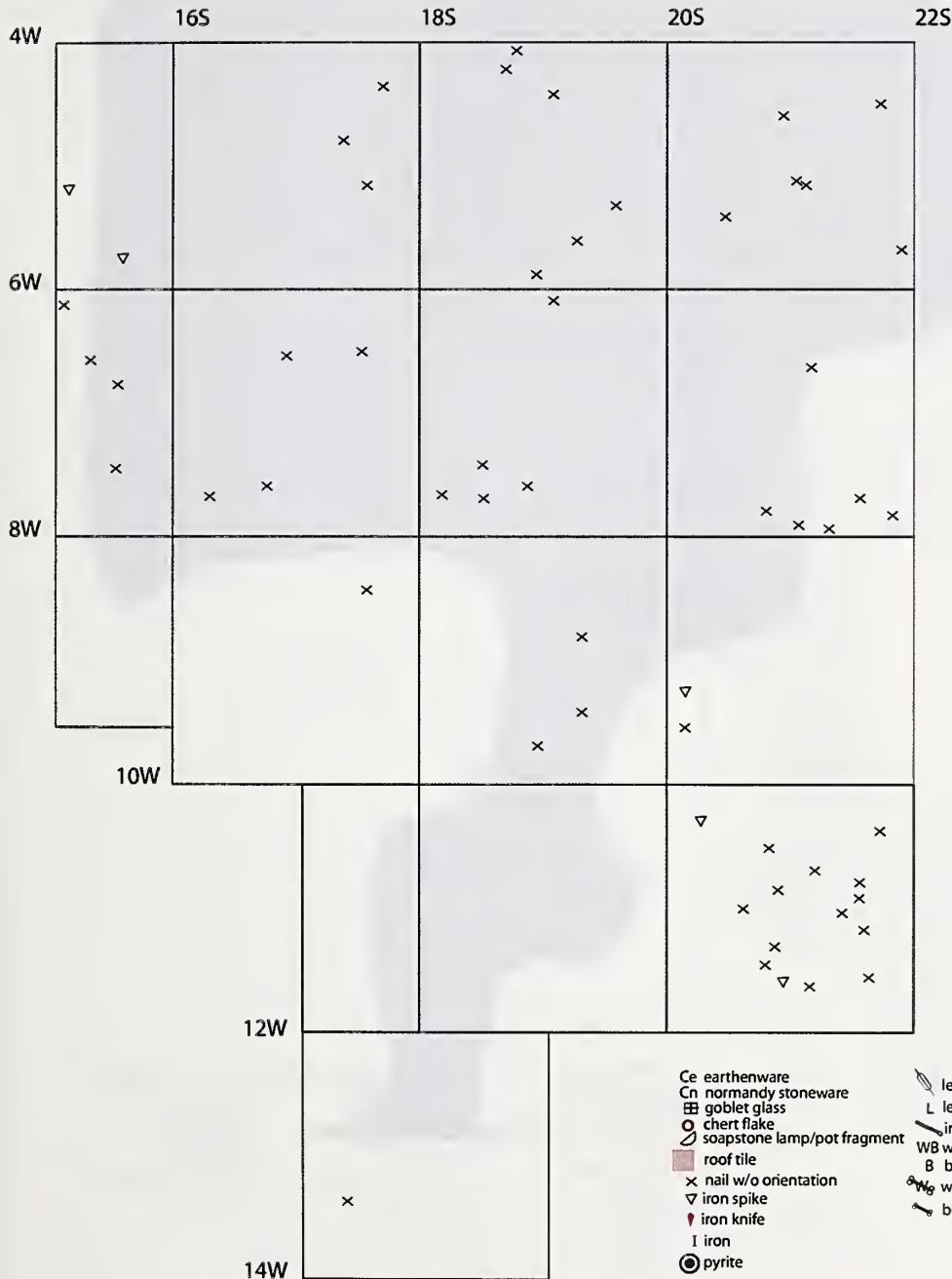


Little Canso Island-1 (EhBn-9)

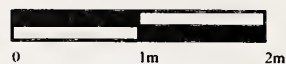


House 2 August 2012
Nail Map

DATUM 5.1m abv high tide



Little Canso Island-1 (EhBn-9)



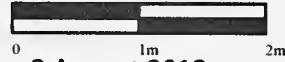
House 2 August 2012
Ornaments Map

DATUM 5.1m abv high tide



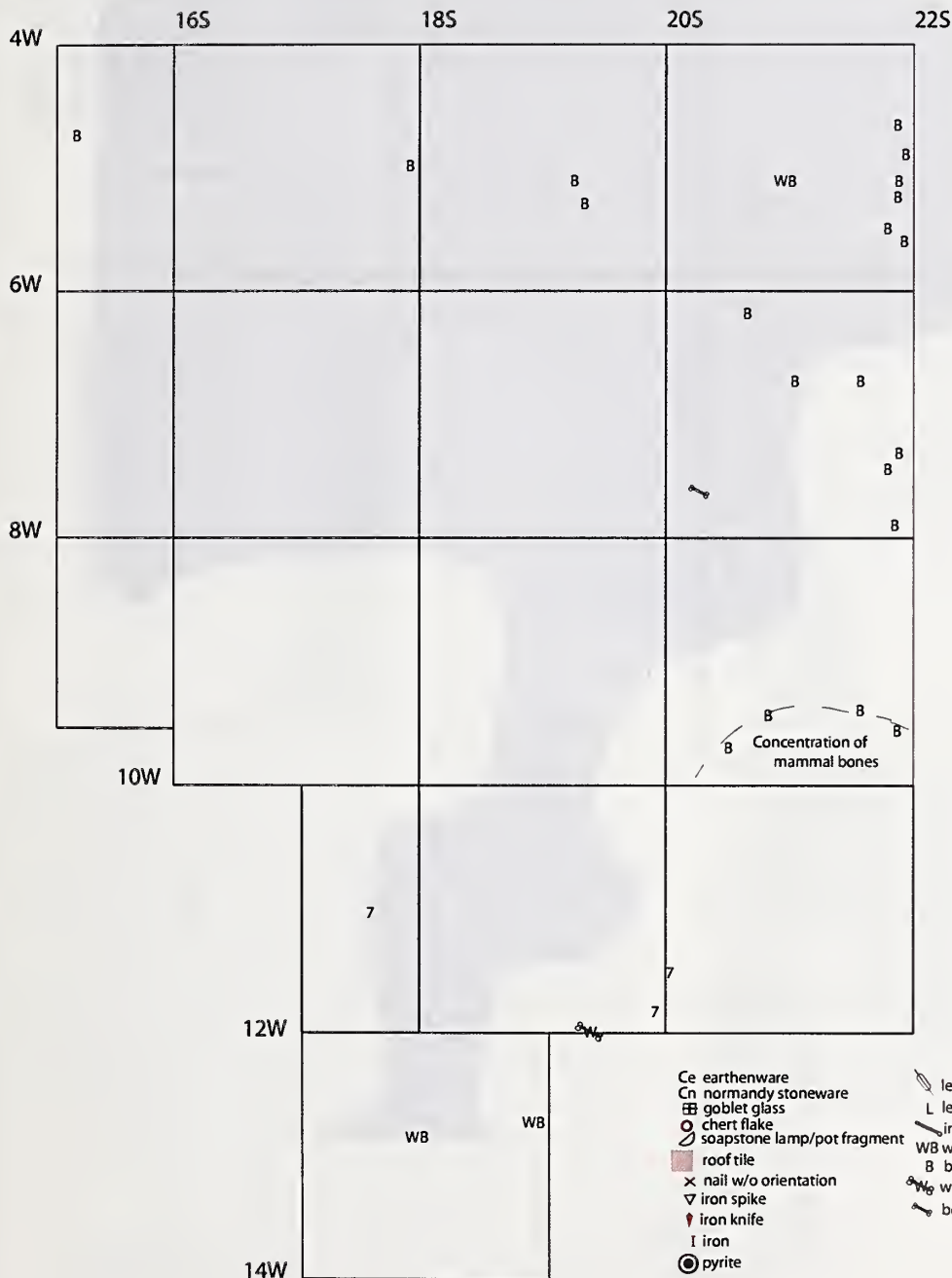
- | | | |
|-------------------------------|-------------------------|-----------------------------|
| Ce earthenware | lead wrapped spike/nail | 1 sphere w/ nail or pyrites |
| Cn normandy stoneware | L lead object | 2 wooden spoon frag |
| ☐ goblet glass | iron rod | 3 copper sheet |
| ○ chert flake | WB whalebone | 4 copper ornament |
| ☐ soapstone lamp/pot fragment | B bone | 5 bone bead |
| ☐ roof tile | Wb whale bone tool | 6 grindstone |
| x nail w/o orientation | bone tool | 7 whale bone sled runner |
| ▽ iron spike | | 8 stemmed point |
| ↑ iron knife | | |
| I iron | | |
| ⊙ pyrite | | |

Little Canso Island-1 (EhBn-9)



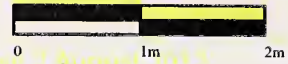
House 2 August 2012
Bones Map

DATUM 5.1m abv high tide




- | | | |
|-----------------------------|-------------------------|-----------------------------|
| Ce earthenware | lead wrapped spike/nail | 1 sphere w/ nail or pyrites |
| Cn normandy stoneware | L lead object | 2 wooden spoon frag |
| goblet glass | iron rod | 3 copper sheet |
| chert flake | WB whalebone | 4 copper ornament |
| soapstone lamp/pot fragment | B bone | 5 bone bead |
| roof tile | whale bone tool | 6 grindstone |
| nail w/o orientation | bone tool | 7 whale bone sled runner |
| iron spike | | 8 stemmed point |
| iron knife | | |
| I iron | | |
| pyrite | | |

Little Canso Island-1 (EhBn-9)



House 2 August 2012
Profiles Map

 indicates profiled wall



Little Canso Island-1 (EdBt-3)

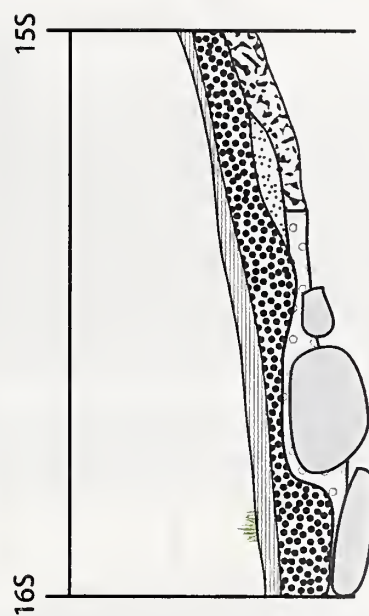
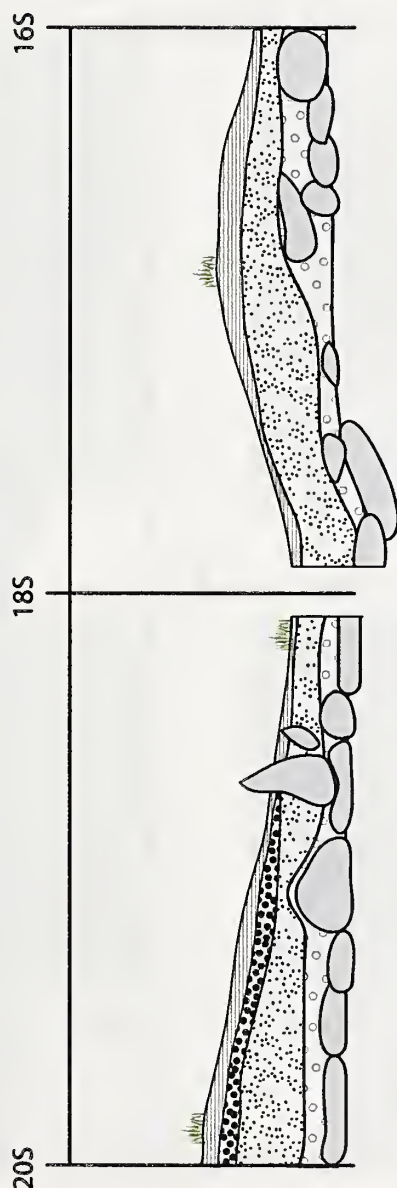
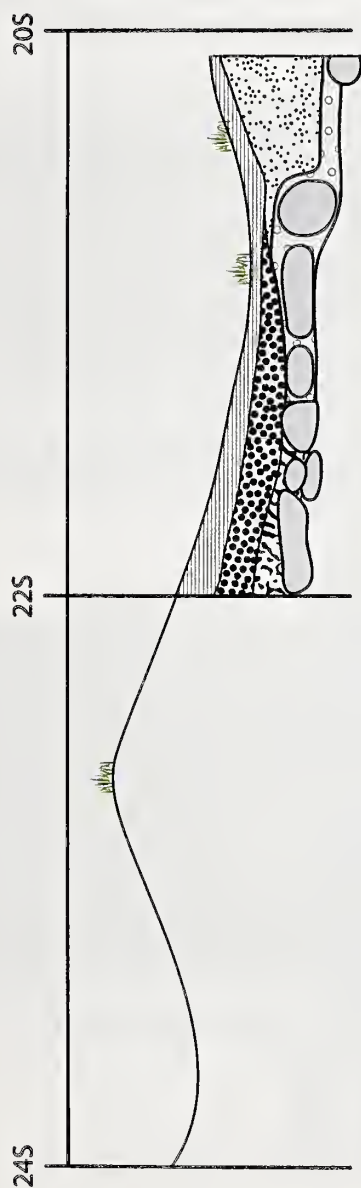
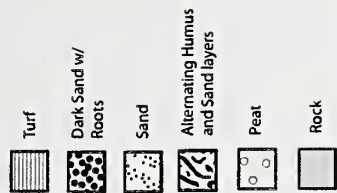
House 2 August 2012

6 West Profile

Baseline 28cm BD



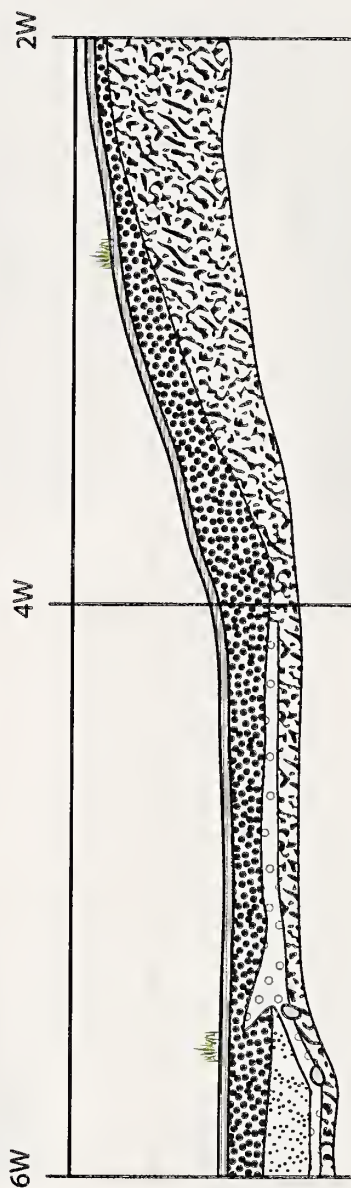
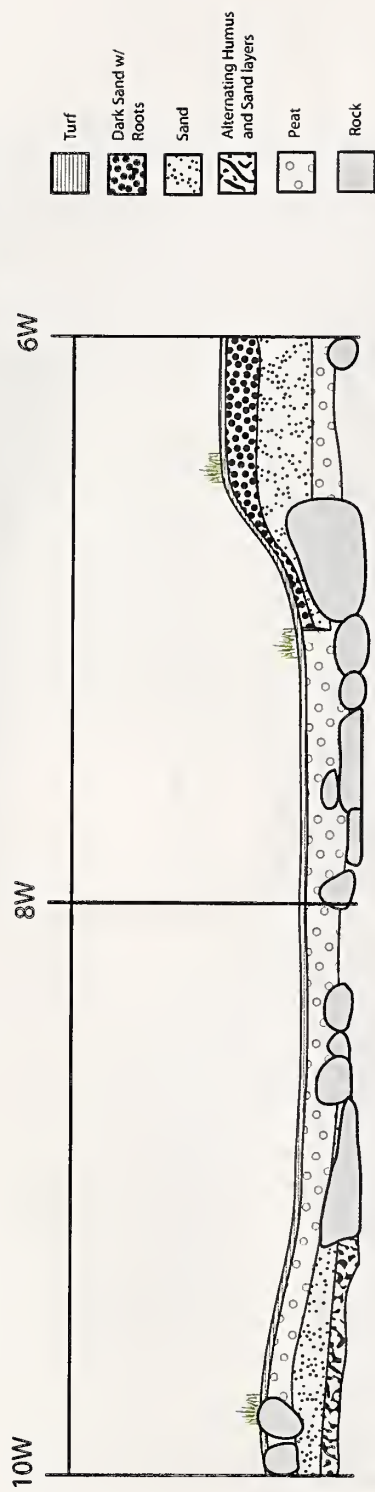
0 25cm 50cm



Little Canso Island-1 (EdBt-3)
 House 2 August 2012
 20 South Profile
 Baseline 28cm BD



0 25cm 50cm



Little Canso Island - 1 Artifact Inventory



Fig 1.96: Caribou gouges and ulna bone drill. Photo by W. Richard



Fig 1.97: Six pieces of sled runner. Photo by W. Richard



Fig 1.98: Pottery strap-handle. Photo by W. Richard



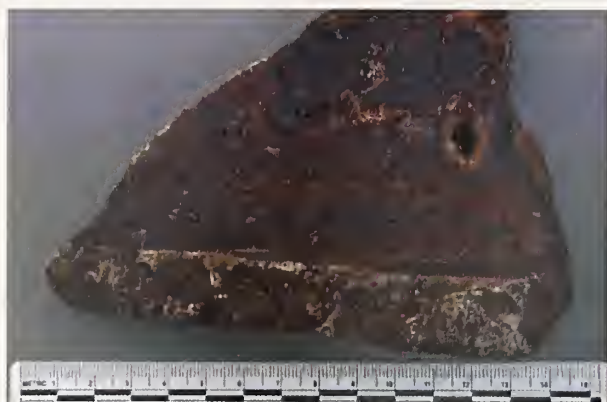
Fig 1.99: Copper piece. Photo by W. Richard



Fig 1.100: Concave copper piece. Photo by W. Richard



Fig 1.101: Reverse of concave copper. Photo by W. Richard



*Fig 1.102: Soapstone lamp fragment with hole.
Photo by W. Richard*



*Fig 1.103: Reverse of perforated lamp. Photo by
W. Richard*



Fig 1.104: Wrapped lead. Photo by W. Richard



Fig 1.105: Soapstone lamp. Photo by W. Richard



Fig 1.106: Bottom of lamp. Photo by W. Richard



Fig 1.107: Sled runner. Photo by W. Richard



Fig 1.108: Caribou vertebrae. Photo by W. Richard



Fig 1.109: Whale bone with cut marks. Photo by W. Richard



Fig 1.110: Copper and lead jigger weight pieces. Photo by W. Richard



Fig 1.111: Lead jigger weights wrappings. Photo by W. Richard



Fig 1.112: Iron balls. Photo by W. Richard



Fig 1.113: Pottery neck and strap. Photo by W. Richard

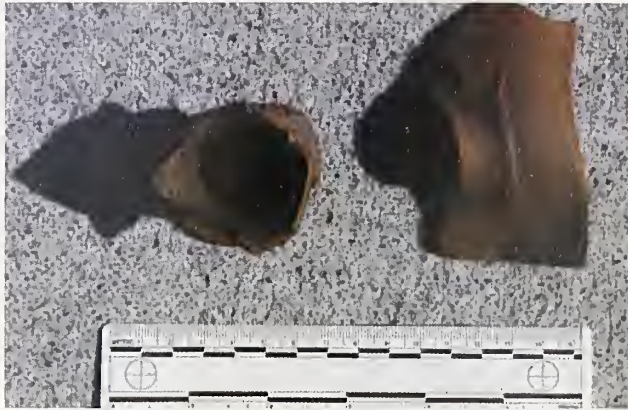


Fig 1.114: Pottery neck and strap 2nd view. Photo by W. Richard



Fig 1.115: Harpoon shaft. Photo by W. Richard



Fig 1.116: Iron blades. Photo by W. Richard



Fig 1.117: Fragment of stoneare bowl base. Photo by W. Richard



Fig 1.118: Large iron spikes and hook. Photo by W. Richard



Fig 1.119: Glass shards. Photo by W. Richard



Fig 1.120: Stoneware sherds. Photo by W. Richard

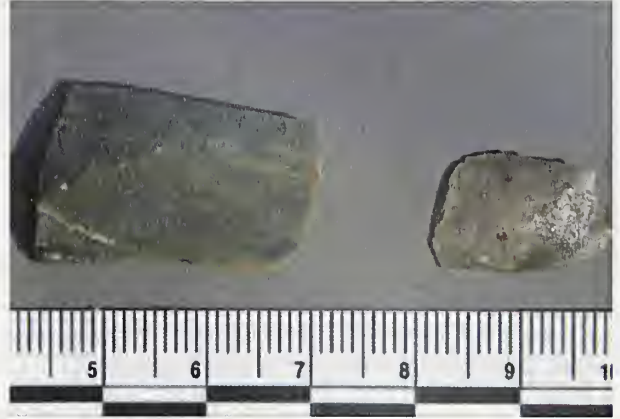


Fig 1.121: Chert flakes. Photo by W. Richard



Fig 1.122: Bone handle with iron blade. Photo by W. Richard



Fig 1.123: Stoneware sherds. Photo by W. Richard



Fig 1.124: More stoneware. Photo by W. Richard



Fig 1.125: Stoneware with handle (broken). Photo by W. Richard



Fig 1.126: Handle removed from stoneware. Photo by W. Richard



Fig 1.127: Canine's muzzle. Photo by W. Richard



Fig 1.128: Caribou teeth. Photo by W. Richard

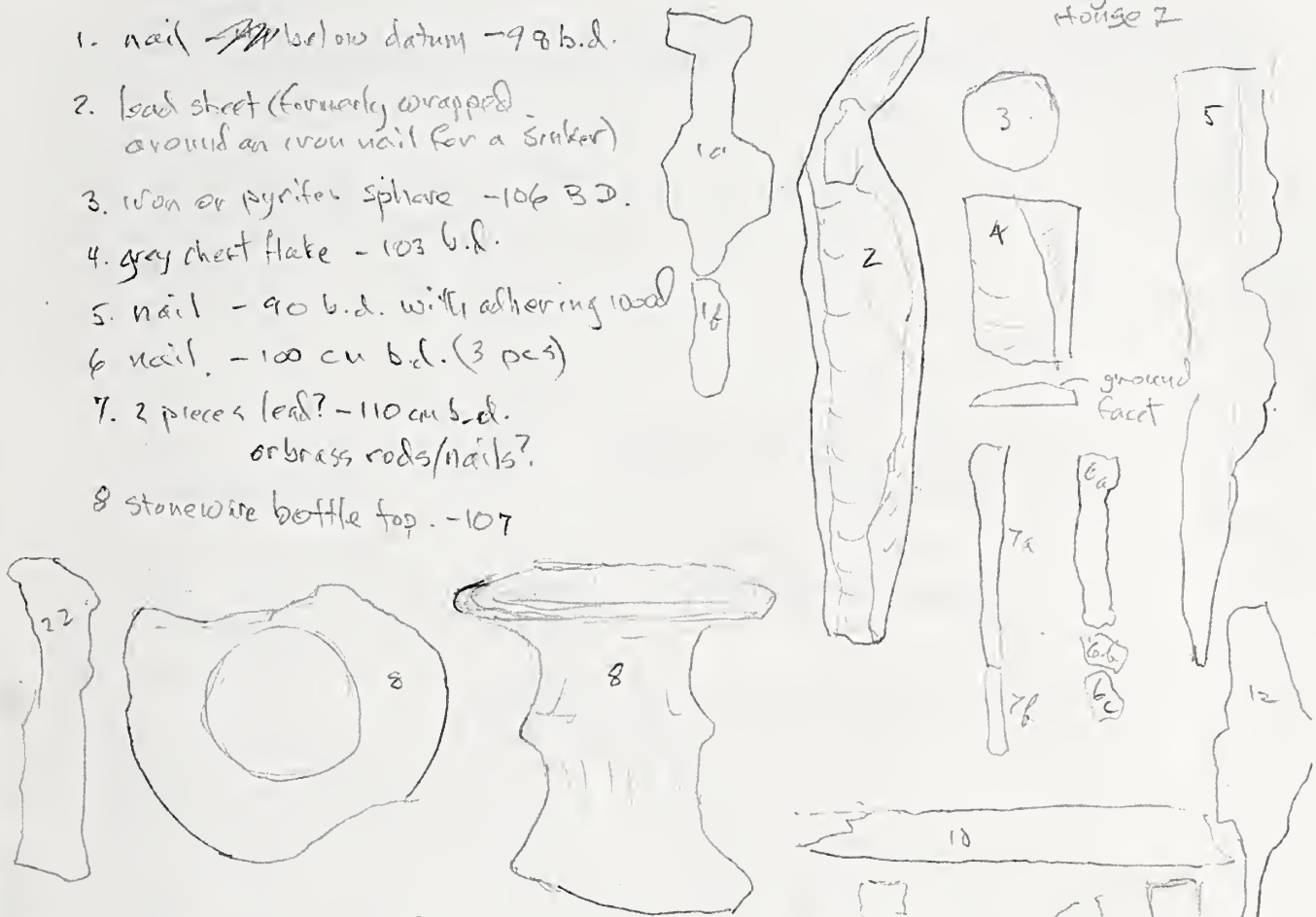


Fig. 1.129: Bone with cut marks. Photo by W. Richard

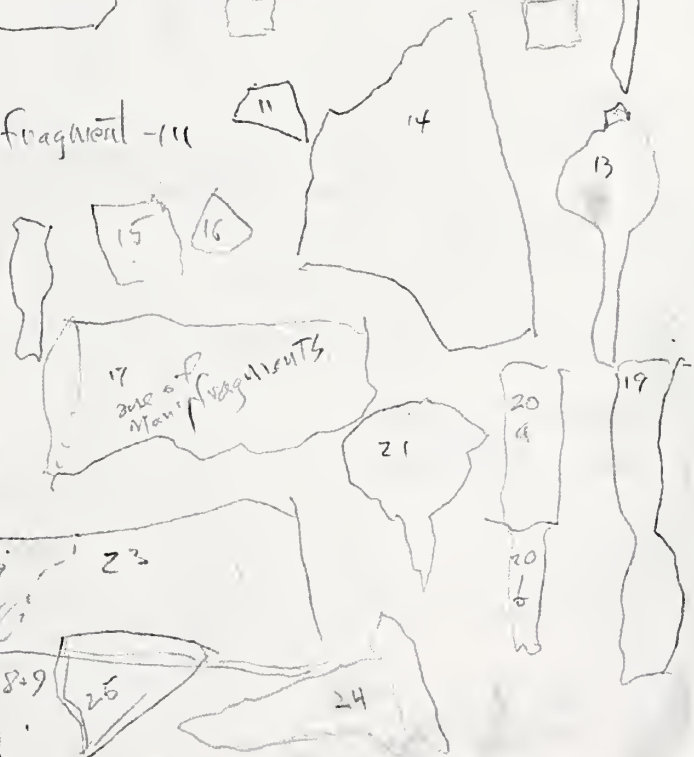
Little Canso Island - 1 Artifact Drawings

House 2

1. nail ~~below~~ datum -98 b.d.
2. lead sheet (formerly wrapped around an iron nail for a sinker)
3. iron or pyrites sphere -106 B.D.
4. gray chert flake - 103 b.d.
5. nail - 90 b.d. with adhering lead
6. nail - 100 cu b.d. (3 pcs)
7. 2 pieces lead? -110 cu b.d.
or brass rods/nails?
8. stoneware bottle top - 107

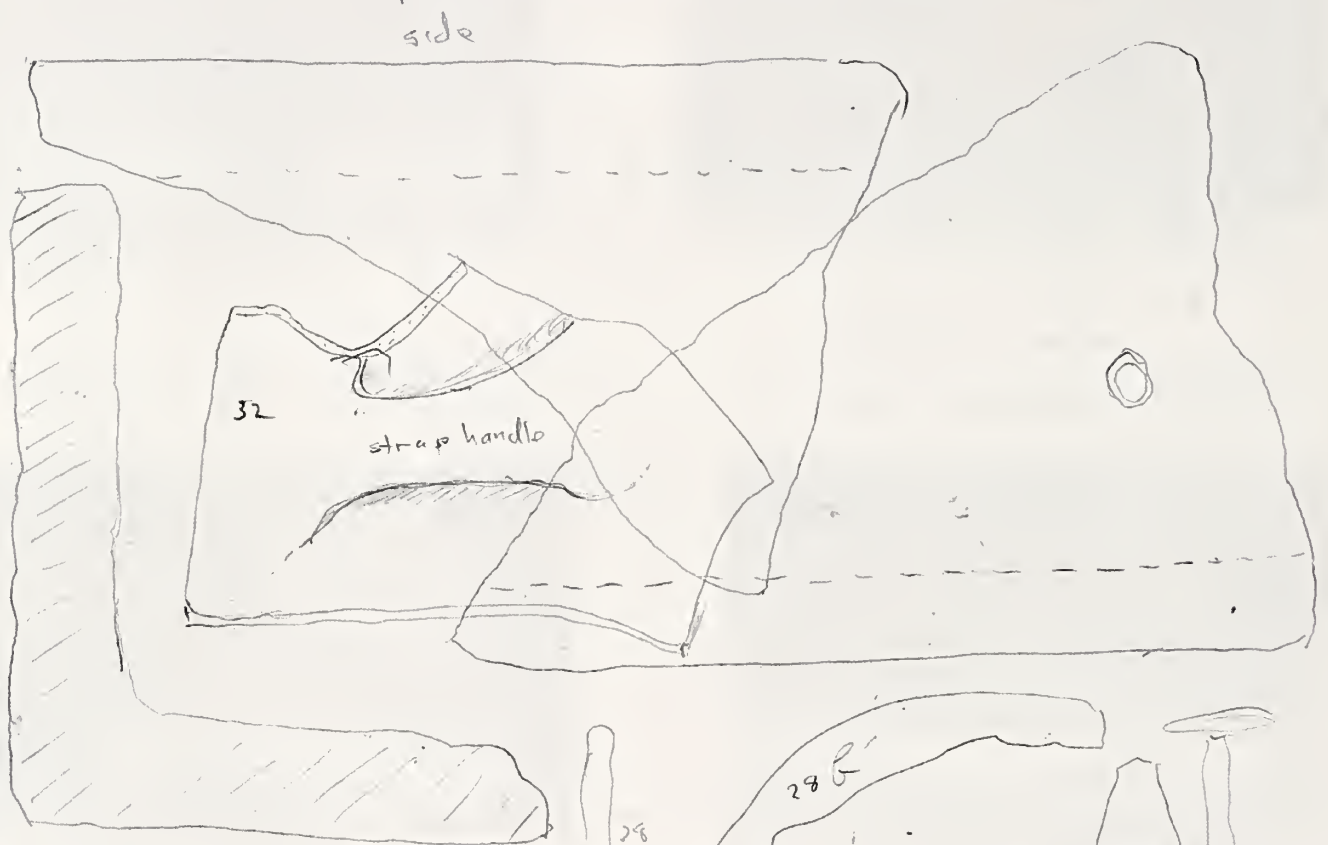


9. nail - 107 cu. (9)
10. bone whalebone harpoon foreshaft fragment -111
11. thin goblet glass -114 (2 pcs)
12. nail -113
13. nail -113
14. roof tile -112
15. small piece of lead -116
16. " " goblet glass -116
17. Roof tile -114 / 1/3 of whole tile not seen
18. iron nail -114
19. " " -95
20. " " -97 (2 pieces)
21. " " -99
22. " " -103
23. Normandy stoneware -103 cu / 108+9
24. Nail -108 (25. stoneware -99 b.d.)



Little Canon Br-1
House 2
12 August 2012

26. soapstone rectangular pot carrier, drill repair hole - 124 b.d.



27. nail - 103 (2 p.c.)

28. nail - 124 with mussel periostrum (2 p.c.)

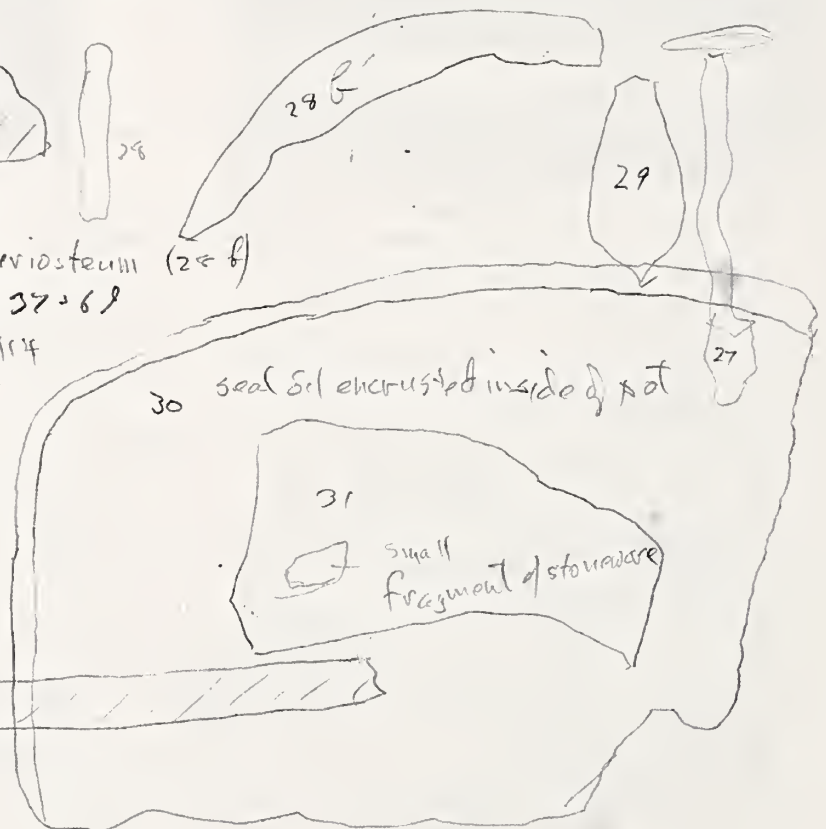
29. - 127 ✓ f. - w/ # 37 + 68

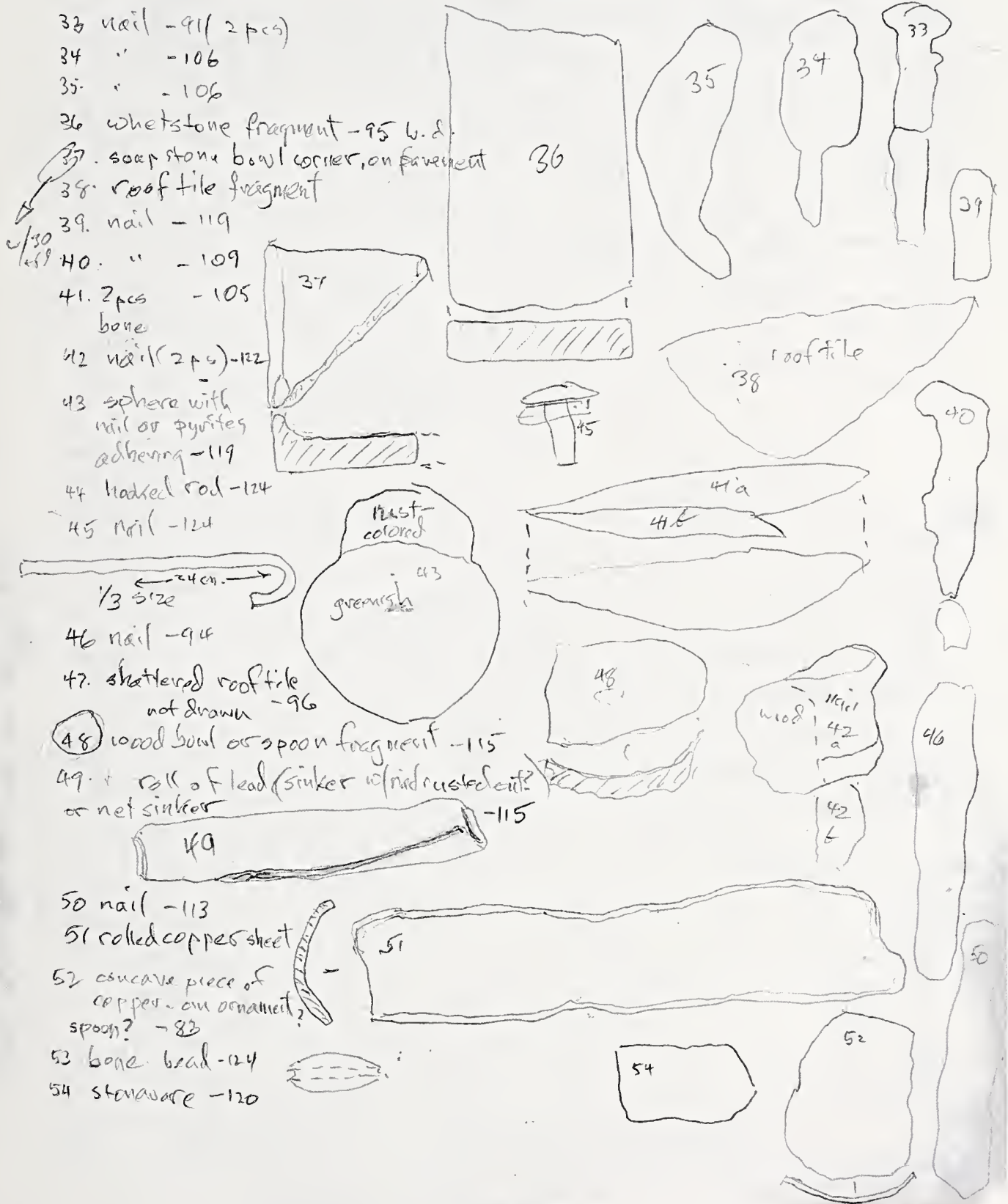
30. soapstone pot bottom - 114

31. stoneware + small fragment -

32. stoneware side with handle

REPAIRS w/ HANDLE
55C





little Causo Is.

55a+b fit w/ 57
 55 3 pcs stoneware -120
 w/ handle

56 8 pcs stoneware -116

57 1 pc stoneware -124
 58 nail -124 (3 pcs)

59 flat -120
 thin glass

60 copper sheet -88

61 nail -93

62 iron sheet (knife?)

63 spike

64 nail



65 Nail -110

66 " on pavement -120

67 nail on pavement -120

68 spike under sq. -71

69 soapstone lamp/pot bottom -71

70 nail -98

71 " -102

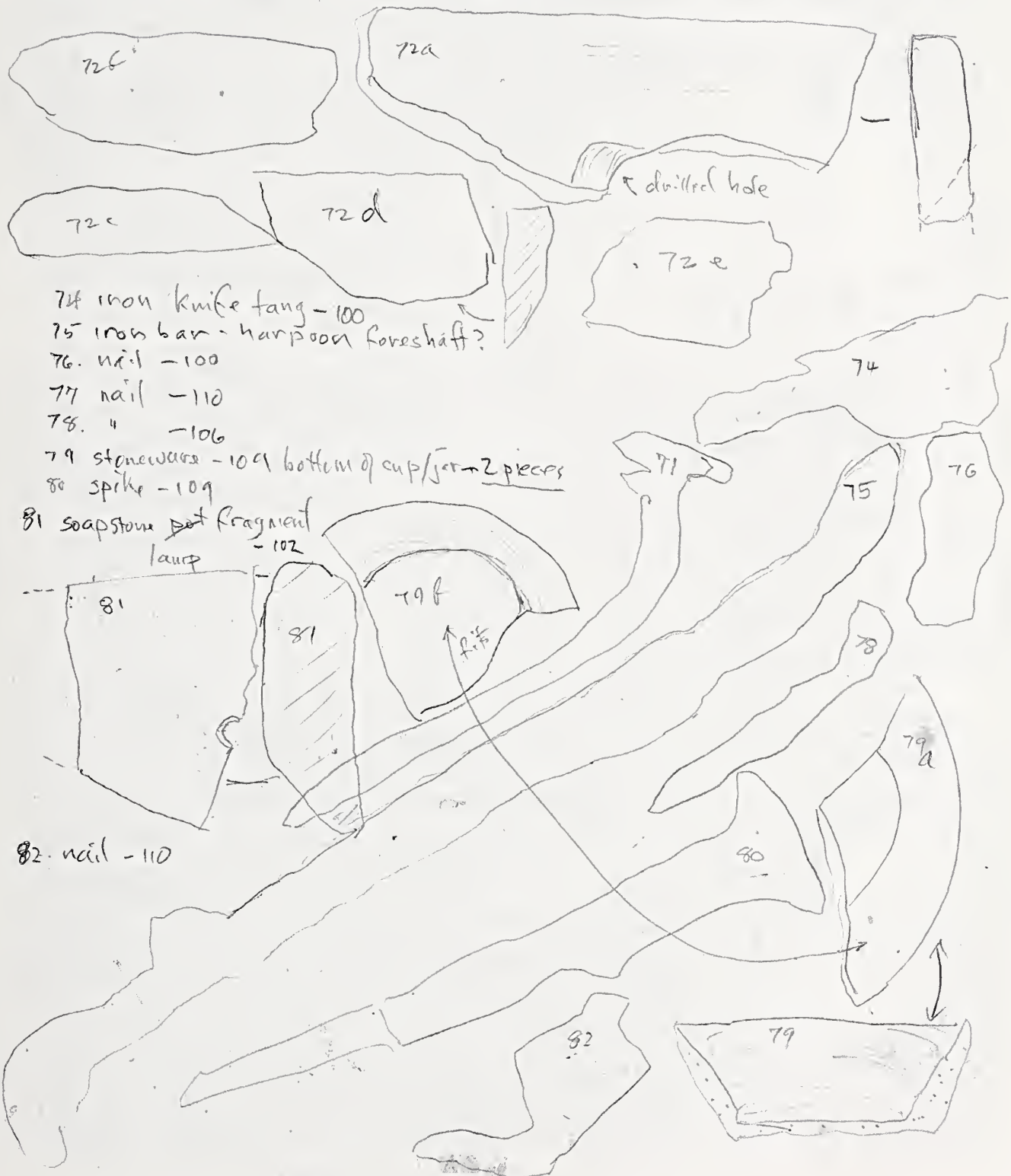
4/30/77

Little Causa Is. 1

14 Aug. 2012

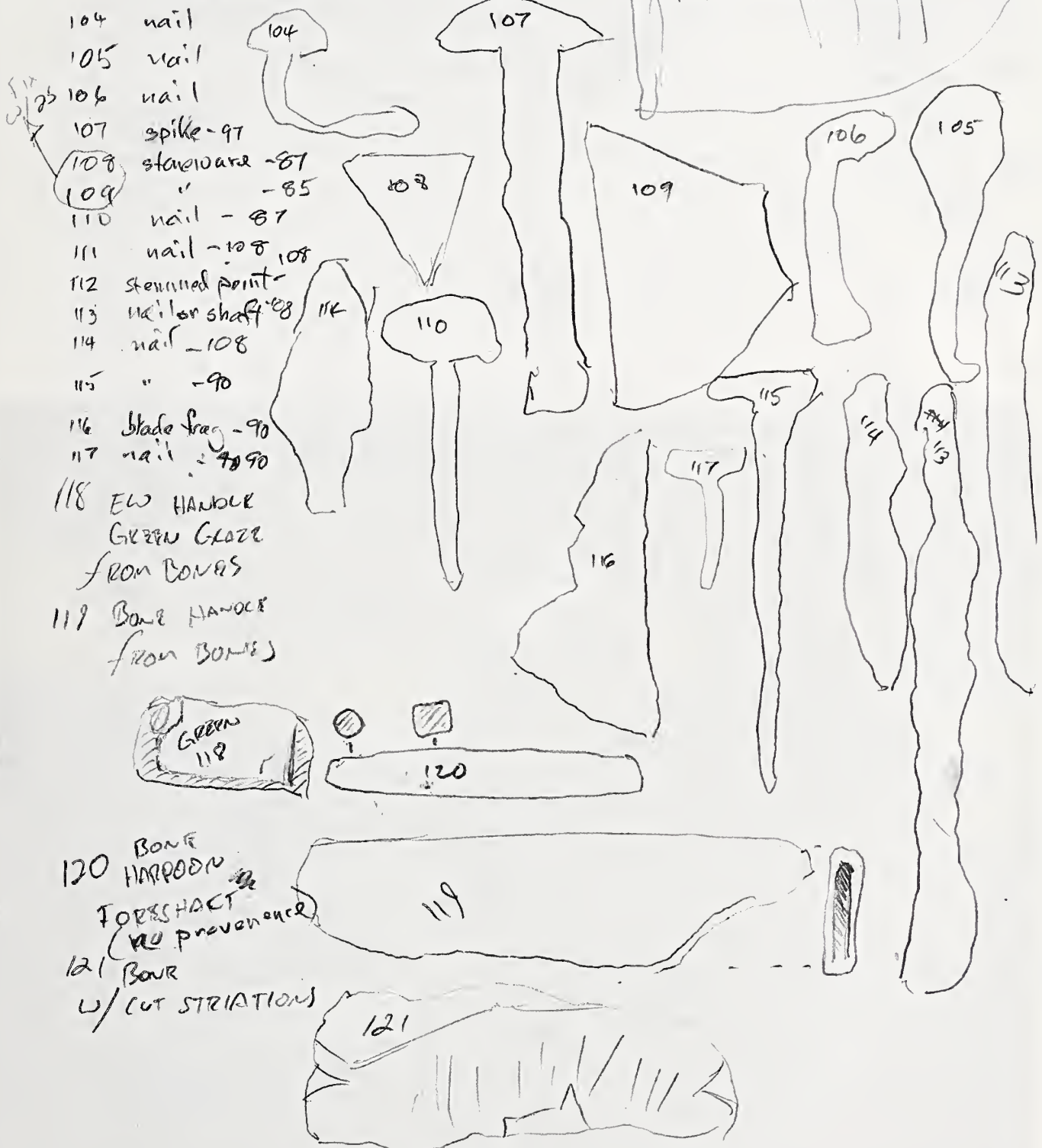
72. whale bone sled runner - fragments - 91 bottom of sled. - 91

73. whale bone fragments - possibly a sled runner



LC1-1

103. Worked whalebone - 126
29cm long with cut marks



- 104 nail
- 105 nail
- 106 nail
- 107 spike - 97
- 108 stone ware - 87
- 109 " - 85
- 110 nail - 87
- 111 nail - 108, 108
- 112 stemmed point -
- 113 nail or shaft - 88
- 114 nail - 108
- 115 " - 90
- 116 blade frag - 90
- 117 nail - 90, 90
- 118 EW HANDLE
GREEN GLAZE
FROM BONES
- 119 Bone HANDLE
FROM BONES

122 WORKED BONE

123 PLANTED
BONE

124 CHIPPED
TIBIA
(PROXIMAL)

125 WORKED
BONE

126 CLNA
TOOL

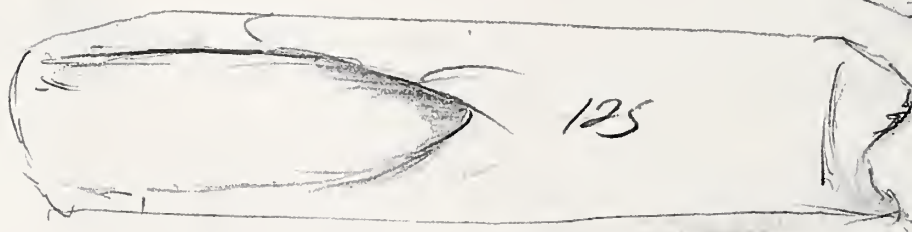
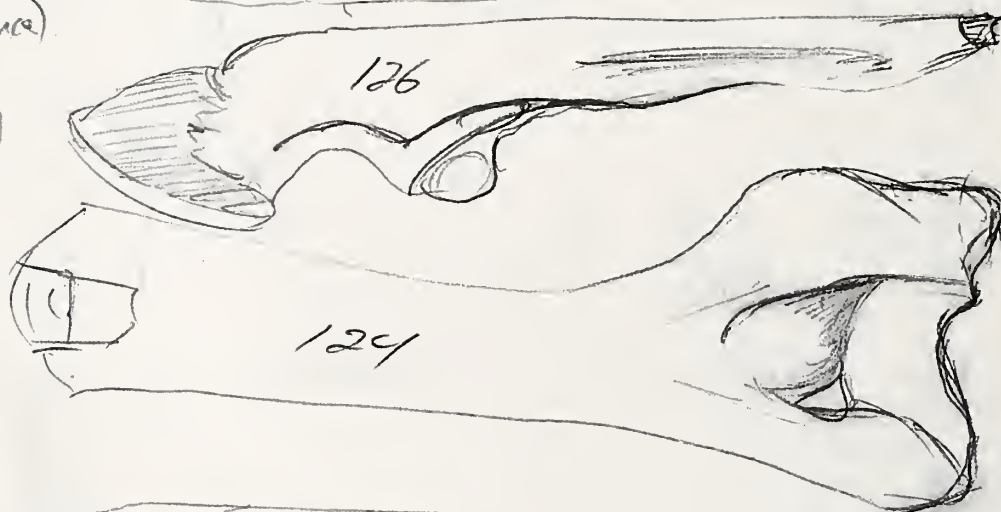
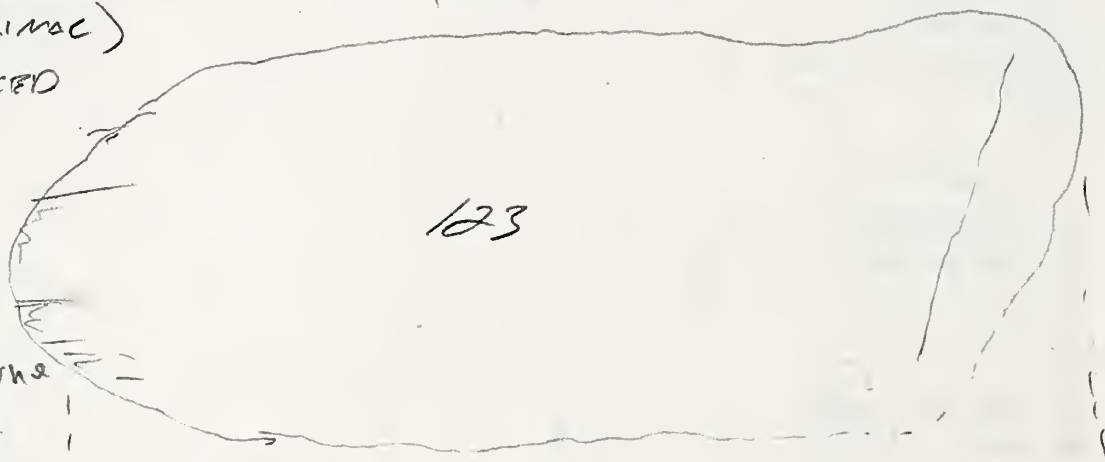
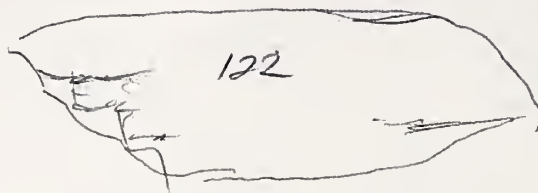
127 whale bone
foreshaft

front bone

middle

(no provenance)

127



6- Un Epave (EhBl-a) au Viex-Fort Archipel

A Shipreck (EhBl-a) in the Old Fort Archipelago
by Erik Phaneuf

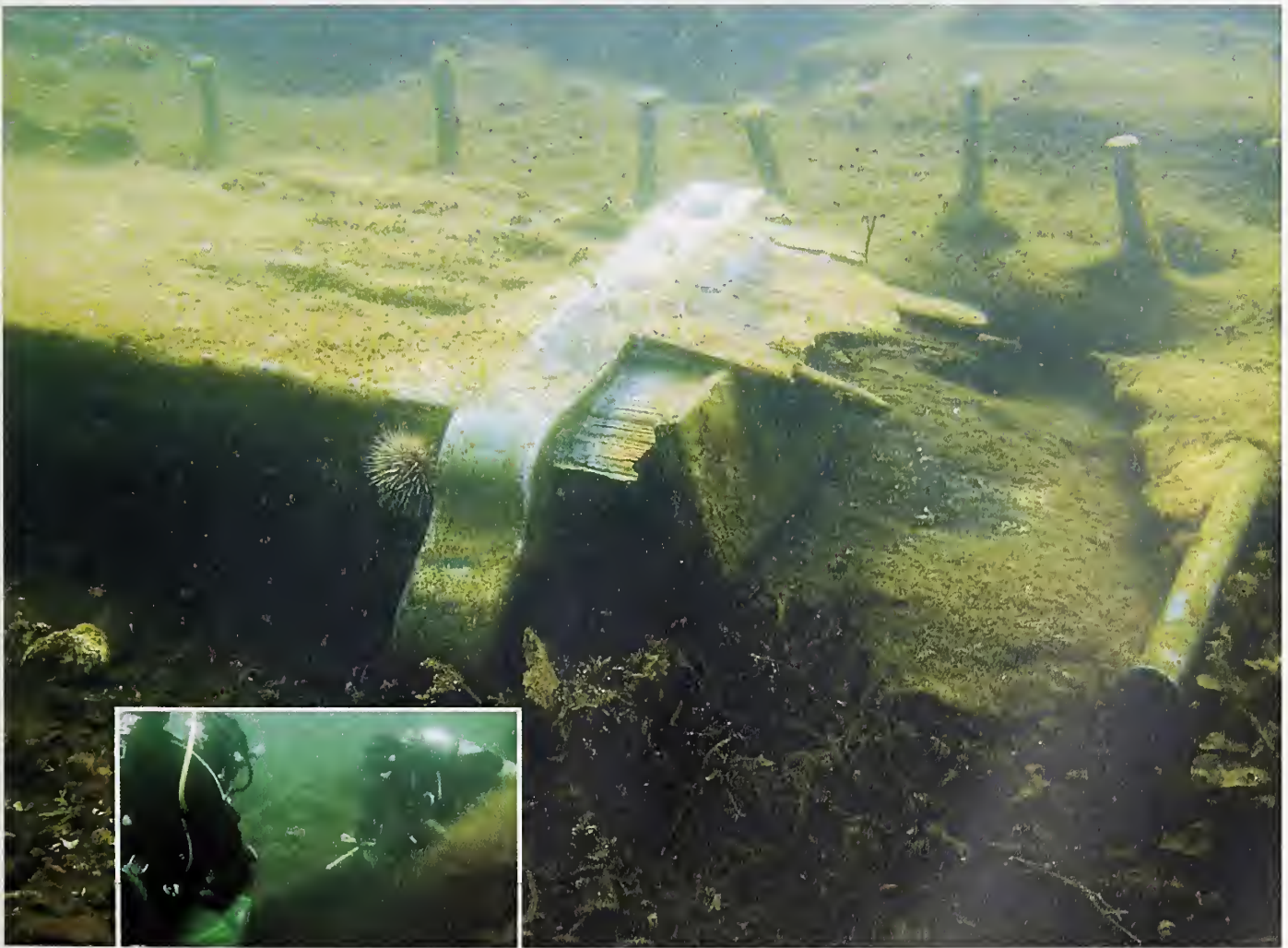


Table des matières

1	Introduction	1
2	Portrait régional, les origines de Brest ... « principale ville de tout le pays ».....	5
3	L'épave de l'île au Chien	11
3.1	Terminologie et description architecturale	11
3.2	Histoire du culvre dans la construction navale	15
3.3	Description générale des vestiges	16
3.3.1	L'épave	16
3.3.2	Description architecturale	19
3.3.2.1	Carlingue.....	19
3.3.2.2	Étambot	21
3.3.2.3	Allonges	23
3.3.2.4	Serre de bouchain.....	23
3.3.2.5	Guirlande de proue ou courbe	23
3.3.2.6	Étrave	24
3.3.2.7	Bordage	24
3.3.2.8	Vaigres	24
3.3.2.9	Chevillage	25
3.3.3	Un unique artefact	27
4	Conclusion et recommandations	29
5	Bibliographie.....	31

Liste des figures

Figure 1 :	Une des plus vieilles illustrations de Brest sur un extrait d'une carte de 1605	6
Figure 2 :	Carte de 1656.....	7
Figure 3 :	Carte de 1661.....	7
Figure 4 :	Carte de 1698.....	8
Figure 5 :	Carte de 1753.....	8
Figure 6 :	Carte de date inconnue montrant l'ancien port des Français.....	9
Figure 7 :	Carte de 1784.....	9
Figure 8 :	Carte de 1898, Rinfret	10
Figure 9 :	Définition des différents éléments architecturaux des œuvres vives	12

Figure 10 :	Définition des différents éléments architecturaux de la poupe.....	13
Figure 11 :	Définition des différents éléments architecturaux de la proue	14
Figure 12 :	Croquis général de l'épave.....	17

Liste des photos

Photo 1 :	Péroglyphe de navire sur l'île Bilodeau	11
Photo 2 :	Détail d'une plaque de cuivre recouvrant la coque du navire	16
Photo 3 :	Pièces de charpente disloquées de l'épave	18
Photo 4 :	Éléments architecturaux érodés.....	19
Photo 5 :	Vue de la carlingue avec pierres de ballast.....	20
Photo 6 :	Détail de l'écart de carlingue ou de la mortaise d'épontille	20
Photo 7 :	Femlot d'étambot de face	21
Photo 8 :	Femlot d'étambot de côté.....	22
Photo 9 :	Étambot et son mode de liaison à la coque	22
Photo 10 :	Allonges avec dimension des mailles	23
Photo 11 :	Courbe avec renforcement métallique	24
Photo 12 :	Cheville de cuivre avec rondelle.....	25
Photo 13 :	Cheville de cuivre rivée	26
Photo 14 :	Concrétions témoignant de l'utilisation du fer sur de possibles virures de pont	26
Photo 15 :	Goulot et col de bouteille	27

Liste des annexes

Annexe A :	Catalogue photos
------------	------------------

1 Introduction

Monsieur Dwight Bilodeau de la Société historique de Pontchartrain déclara auprès du receveur d'épaves (Transports Canada) les vestiges d'un navire gisant au fond d'une baie. Connus sous l'appellation de l'épave de l'Île au Chien (EhBI-a), les restes du navire reposent à moins de 15 mètres de profondeur dans la baie. Ils sont connus de la population locale depuis plusieurs générations, mais l'histoire du naufrage sombra quant à elle dans l'oubli et ne fait plus partie de la mémoire collective.

Monsieur Bilodeau fit faire des analyses de datation qui résultèrent en une date contemporaine à l'occupation de Brest et même au passage de Jacques Cartier au moment où il plantait sa croix sur les rives de la Basse-Côte-Nord. Confiant de l'importance des vestiges reposant au fond de la baie, Monsieur Bilodeau contacta le ministère de la Culture et des Communications (MCC) dans le but de faire expertiser l'épave et éventuellement d'en faire la mise en valeur. S'ensuivront des échanges entre la Société historique de Pontchartrain et le Ministère qui menèrent à l'attribution d'un mandat d'expertise de l'épave. Plus spécifiquement, Erik Phaneuf, archéologue de la compagnie AECOM, également participant à la prospection archéologique le long des côtes de la Basse-Côte-Nord dans le cadre du projet St-Lawrence Gateway du Arctic Studies Center du National Museum of Natural History de la Smithsonian Institution (Fitzhugh : 2001 à 2012), fut mandaté par le Ministère afin de mener une expertise sur l'épave de l'Île au Chien (EhBI-a) parallèlement aux travaux réalisés dans le cadre du Gateway Project.

Le mandat confié à AECOM visait à recueillir les données archéologiques et à les consigner dans un rapport. L'inventaire avait pour objectif de faire l'évaluation, l'identification et la localisation des vestiges observés. De façon plus spécifique, les objectifs poursuivis étaient les suivants :

- évaluer le potentiel patrimonial et archéologique des vestiges ;
- faire l'interprétation sommaire des vestiges;
- réaliser un rapport de recherche présentant les résultats de l'étude.

L'expertise de l'épave a été réalisée dans la journée du 16 août 2012 par l'équipe du National Museum of Natural History de la Smithsonian Institution. Le vaisseau scientifique Pitsiulak de la Smithsonian Institution avec à son bord un équipage de 12 personnes a fait un détour et un arrêt spécialement pour l'expertise de l'épave. À l'arrivée du Pitsiulak les prévisions météorologiques anticipaient un temps impropre à la navigation pour les 24 prochaines heures. De ce fait, l'expertise de l'épave s'est faite en moins d'une demi-journée, l'équipage étant obligé de poursuivre le voyage vers un lieu assurant une meilleure protection des éléments.

Une seule plongée de 45 minutes en moyenne a donc été réalisée par 6 membres de l'équipe, totalisant environ 270 minutes de plongée pour l'enregistrement et l'observation très sommaire des vestiges. Heureusement, la visibilité horizontale était de l'ordre d'environ 10 mètres et la baie était à l'abri des courants facilitant ainsi la prise de notes et l'observation directe des vestiges. Cependant, les restes visibles du navire de plus de 40 mètres hors-tout avec la majorité de la carène, soit les œuvres vives, présentaient des extrémités érodées. La carène, qui représente la partie du navire se trouvant sous la ligne de flottaison, était recouverte de pierres de ballast, donc peu accessible.

2 Portrait régional, les origines de Brest ... « principale ville de tout le pays »

La société historique de Vieux-Fort défend l'idée que la communauté réside sur les lieux de Brest, lieu mythique de la Basse-Côte-Nord où une résidence de luxe aurait existé avant même la fondation de Québec. Il est vrai qu'à l'époque de Jacques Cartier et au cours des 16^e, 17^e et même 18^e siècles, la navigation de cette région du fleuve était plus commune qu'aujourd'hui. L'exploitation des ressources naturelles de la côte, soit le bois, la pêche et les pelleteries, fut la source de bien des richesses tout comme la perte de bien des navires. Selon les dires de la population locale, la prohibition du début du 20^e siècle aurait également engendré une navigation clandestine dans les eaux de l'Atlantique.

Malgré l'occupation saisonnière de la côte par les pêcheurs bretons et basques, l'histoire de Brest commence avec la visite de Jacques Cartier, trois semaines avant son arrivée en Gaspésie, lorsqu'il y planta une croix et y célébra une messe en juin 1534. Il y approvisionna ses navires en eau douce, en vivres et en bois lors de son séjour d'une journée.

Et le huitiesme dudict moys, nous appareillasmes de ladicte ysle, & avec bon temps vinsmes au hable du blanc sablon estant à l'abbaye des chasteaux le XVe jour dudict moys, qui est le lieu ou nous debuoyns rendre: Auquel lieu feusmes attendans noz compaignons jusques au vingt sixiesme dudict moys, lequel jour ilz arriverent tous deux ensemble: Et la nous acoustrasmes & prisms eaues, boys & aultres choses necessaires, & appareillasmes & feismes voylle pour passer outre le vingt neufiesme jour dudict moys à l'aube du jour, & feismes porter le long de la coste du Nort Gisant, est Nordest, & Ormaist, Surmaist jusques environ les huit heures de soir que meismes les voylles bas, le travers de deux ysles qui l'avancent plus hors que les autres que nous nommasmes les ysles Saint Guillaume. Et sont environ vingt lieues outre le hable de Brest: Le tout ladicte coste depuis les chasteaulz jusques icy gist est Nordest & Ormaist Surmaist rengee de plusieurs ysles & terres toutes hachee & pierreuse, sans aucune terre ny boys, fors en aucunes vallees. Cartier Jacques, 1863.

L'on peut constater qu'à cette époque, plusieurs navires visitaient la côte, puisque même Jacques Cartier lors de son voyage croisait des navires à la recherche du port de Brest.

Plus outre, à dix lieues, y a vne aultre bonne ripuiere plus grande, où il y a plusieurs saulmons; Nous la noumasmes la ripuiere Saint Jacques. Estans à icelle, nous aperseumes vng grant nauiere qui estoit de la Rochelle, qui auoit passé la nuyt [cherchant] le hable de Brest, où il pensoit aller faire sa pescherie; et ne sçauoit où ilz estoit. Nous allames à bord avecques noz barques, Et le mysmes dedans vng aultre hable à vne lieue plus à Quaist que ladicte ripuiere Saint Jacques, Lequel je pencze l'vn des bons hables du monde; Cartier Jacques, 1867.

Ainsi, il est peu étonnant de constater qu'au début de la colonie, le territoire est perçu comme pouvant « ... un jour devenir un puissant royaume, qui sera un des plus beaux fleurons de la couronne de l'Empereur des français » (Mémoire de 1715 tiré de Niellon, 1995).

Mais quand est-il du nom de Brest ? Vient-il de Jacques Cartier lui-même? Certains historiens croient que le nom dérive du mot montagnais *bu-ris-te*, qui signifie « Lieu où chassent les Blancs ». Quoi qu'il en soit, dès les premiers balbutiements d'une colonisation, le territoire se fait connaître dans la vieille Europe par des écrits dits historiques qui sont en fait des fabulations de certains allant jusqu'à élever cette côte comme lieu de haute société dès

1609¹. La publication d'une lettre qui se veut une correspondance privée venant d'un visiteur du nouveau continent mentionne qu'il fut « .. reçu chez un certain sieur du Dongeon. Cet hôte illustre tient sa cour à « Brest, principale ville de tout le pays ...² ». Les premiers historiens ont parfois altéré la réalité en proposant une vision utopique et déréalisée de la vraie nature du territoire. De cette fiction naquit entre autres l'image démesurée de Brest qui perdura bien des années comme le démontre la présence de Brest sur les cartes d'époque. Toutefois, son existence n'en demeure pas moins réaliste, l'endroit en soi existe et se situerait à quelques lieues à l'ouest de Blanc-Sablon. Il est cependant peu probable que Brest eut été la principale ville de tout le pays.

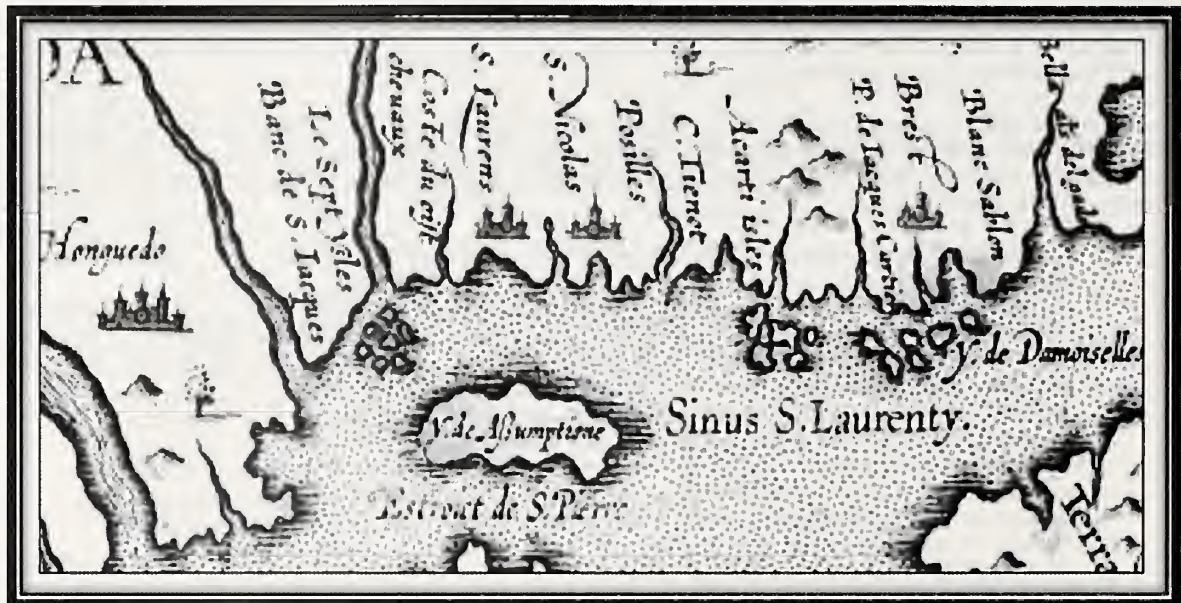


Figure 1 : Une des plus vieilles illustrations de Brest sur un extrait d'une carte de 1605

Source : Niellon, 1995 tiré de C. Wyffliet, « Nova Francia et Canada » (détail), *Histoire des Indes occidentales*, 1605

Ainsi, dans l'imaginaire de certains, comme il est illustré sur l'extrait de la carte de 1605 (figure 2), Brest serait une grande ville ! Mais les cartes sont souvent réalisées par des gens qui n'ont jamais vu le territoire et qui possèdent des indications que l'on pourrait considérer d'imprécises. Ainsi, Brest est représenté sur de nombreuses cartes, mais souvent à différents endroits. On le remarque sur la carte de 1656 (figure 3) qui situe Brest à la pointe sud du Labrador très loin cette fois de la baie de Jacques Cartier, alors que celle de 1661 replace Brest un peu plus près de sa place d'origine (figure 4). Ainsi, il est difficile de savoir exactement où gît réellement Brest.

Le 18^e siècle voit changer l'image de Brest. Sur la carte du cartographe Nicolas Bellin publiée en 1753, l'emplacement porte maintenant le nom d'Ancien port des Français et en 1784, le nom de Vieux-Fort apparaît à côté de la référence au nom de Brest. Ce nouveau nom fait référence au fort de Pontchartrain construit en 1701 et déplacé vers 1711 (Niellon, 1995). Enfin, à la fin du 19^e siècle, le mythe de Brest refait surface ainsi que le nom sur certaines cartes (figure 9).

¹ De(s) Combes, *Coppie d'une lettre envoyée de la Nouvelle France, ou Canada, par le Sieur de Combes, Gentilhomme Poitevin, à un sien amy. En laquelle sont brièvement descrites les merveilles, excellences, et richesses du pays, ensemble la façon et moeurs de ceux qui l'habitent, la gloire des François, et l'esperance qu'il y a de rendre l'Amerique Chrestienne*, Lyon, Léon Savine, 1609.

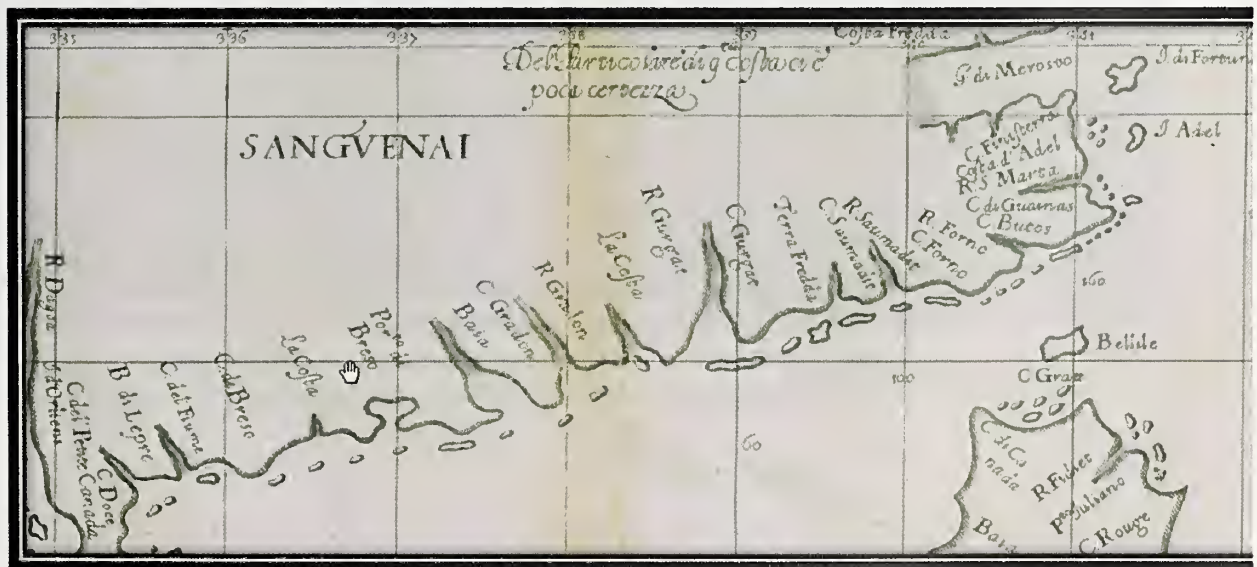
² Idem.

De la mention de Jacques Cartier et, surtout, à partir des élucubrations des missionnaires jésuites à la recherche de financement, le mythe de Brest survit jusqu'à aujourd'hui, même si ses traces archéologiques demeurent toujours énigmatiques.



Figure 2 : Carte de 1656

Source : NICOLAS SANSON, 1656, Le Canada ou Nouvelle France &c.



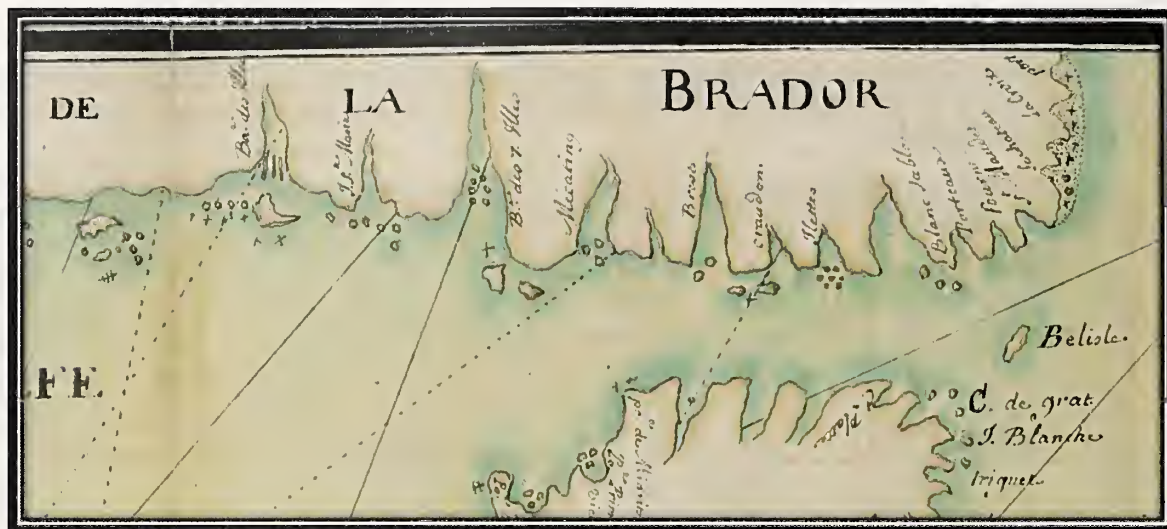


Figure 4 : Carte de 1698

Source : Gilles Gabriel de Chaviteau, 1698. Carte de l'île de Terre-Neuve

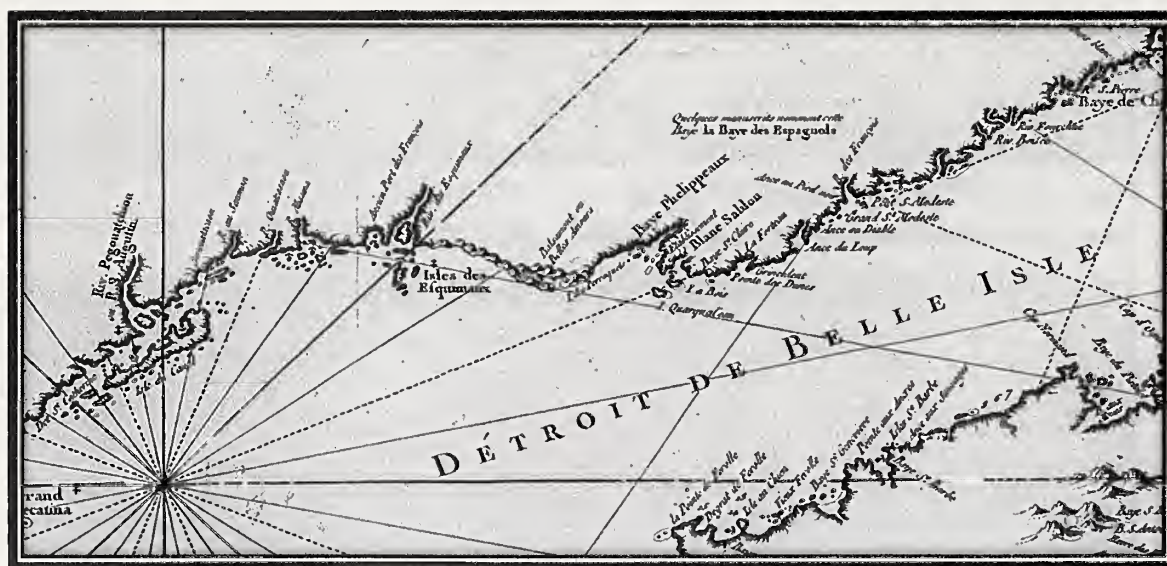
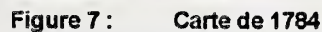


Figure 5 : Carte de 1753

Source : Nicolas Bellin, Suite de la carte réduite du Golphe de St Laurent contenant les costes de Labrador ... le détroit de Belle-Isle et partie des côtes de l'île de Terre-Neuve



Source : INCONNU-A, ind. Terre-Neuve. Bibliothèque nationale de France



Source : INCONNU-E. 1784. Carte réduite des bancs et de l'île de Terre-Neuve [coloriage avec légende ms.]. Bibliothèque nationale de France.



Figure 8 : Carte de 1898, Rinfret

Laissant la romanesque ville de Brest de côté, il n'en demeure pas moins que la côte fut visitée par de nombreux navires au cours des siècles et que des vestiges d'épave reposent au fond d'une baie à l'île Bilodeau. Il était espéré que l'épave témoigne de l'époque de Brest et qu'elle permette d'écrire un nouveau chapitre à l'histoire de Jacques Cartier. Il n'en fut pas ainsi, car la présence de plaque de cuivre indique avec certitude un terminus *post quem* de 1761.

3 L'épave de l'île au Chien

Sur une des îles au Chien, il est possible de voir un pétroglyphe illustrant un navire, deux voiles dehors avec une date incertaine gravée sous le navire semblant indiquer 1921 ou 1821. Selon Monsieur Bilodeau, le tracé du dessin aurait été refait par sa famille il y a de cela bien des années et personne de mémoire ne sait qui a réalisé l'œuvre. Le retraçage aurait été fait en respectant l'original. Il est possible que cette illustration témoigne du naufrage. La hauteur du pétroglyphe par rapport au sol témoignerait d'une réalisation hivernale.

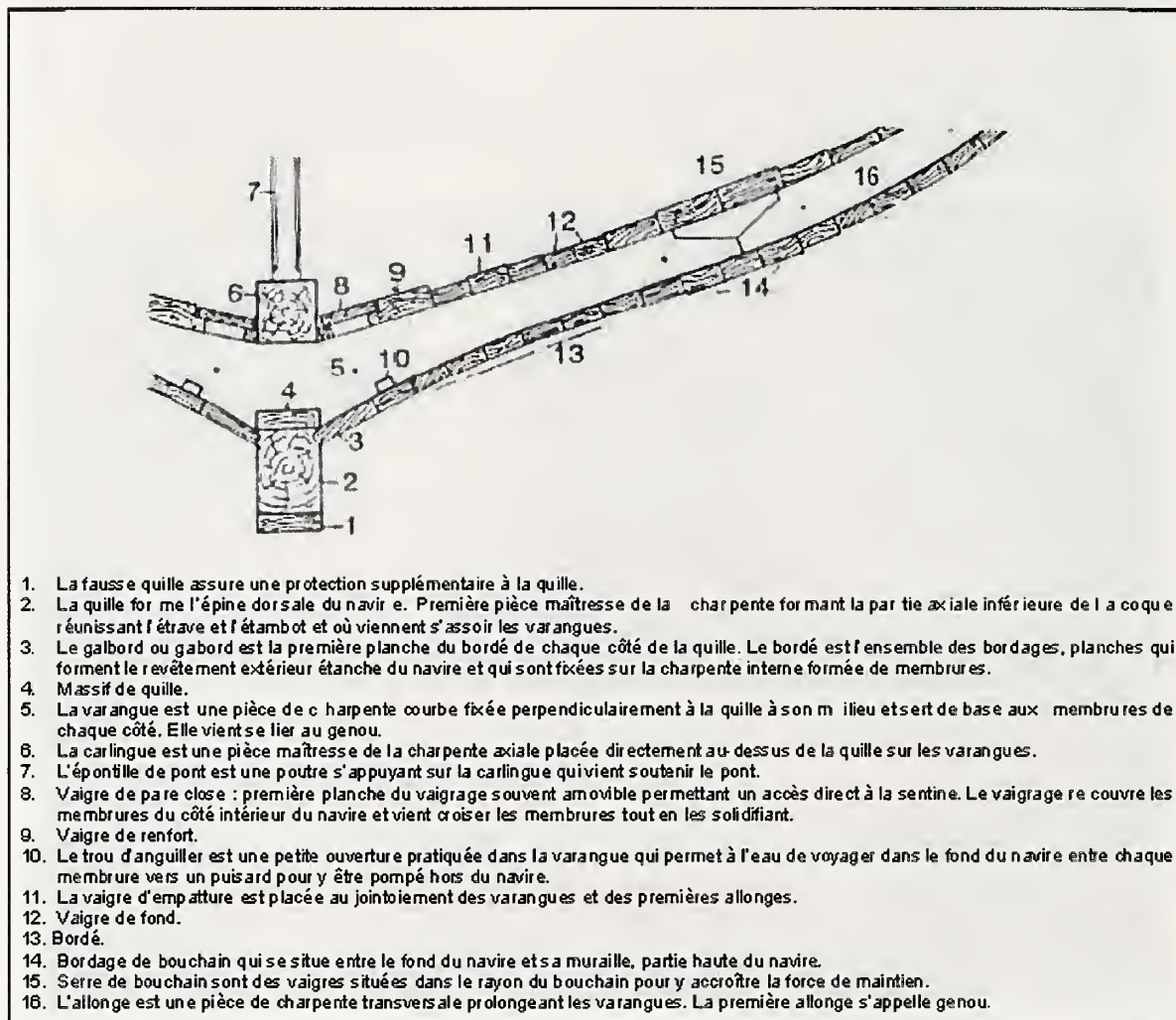


Photo 1 : Pétroglyphe de navire sur l'île au chien

Source : Dwight Bilodeau

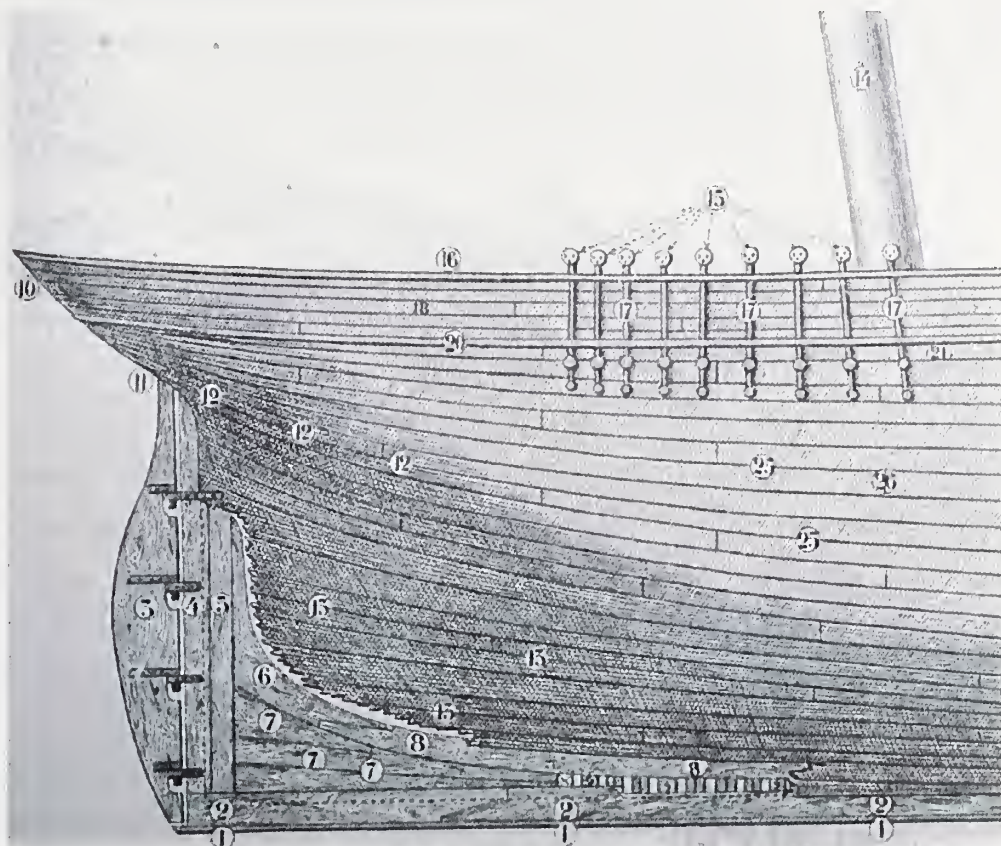
3.1 Terminologie et description architecturale

Afin de mieux comprendre la description des éléments architecturaux mentionnés ci-après, voici des illustrations identifiant les principales pièces du navire formant la carène du navire, soit la partie immergée du navire.



Sources : Staffy 1994; Paasch 1885; Desgagnés.1977

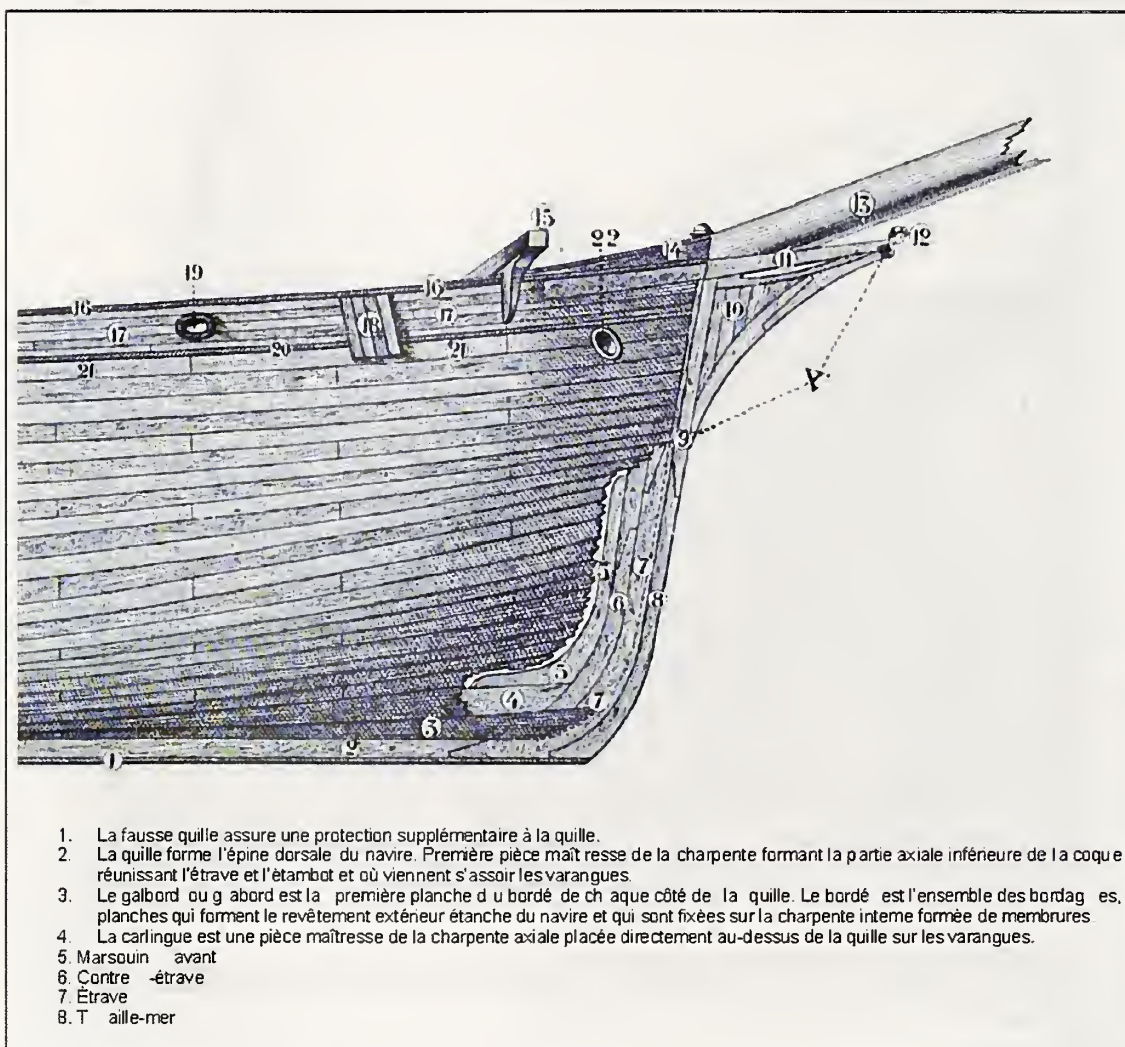
Figure 9 : Définition des différents éléments architecturaux des œuvres vives



1. La fausse quille assure une protection supplémentaire à la quille
2. La quille forme l'épine dorsale du navire. Première pièce maîtresse de la charpente formant la partie axiale inférieure de la coque réunissant l'étrave et l'étambot et où viennent s'asseoir les varangues.
3. Gouvernail
4. Étambot
5. Contre-étambot
6. Marsouin arrière
7. Massif
8. La carlingue est une pièce maîtresse de la charpente axiale placée directement au-dessus de la quille sur les varangues.
9. La varangue est une pièce de charpente courbe fixée perpendiculairement à la quille à son milieu et sert de base aux membrures de chaque côté. Elle vient se lier au genou
10. Partie haute du tableau arrière de la poupe
11. Voute de basse poupe
12. Bordé

Sources : Steffy 1994, Paasch 1885, Desgagnés.1977

Figure 10 : Définition des différents éléments architecturaux de la poupe



Sources : Steffy 1994; Paasch 1985; Desgagnès 1977

Figure 11 : Définition des différents éléments architecturaux de la proue

3.2 Histoire du cuivre dans la construction navale

Comme l'épave comporte de nombreuses tiges de cuivre dans son mode de liaison et qu'une partie de la coque visible est recouverte de plaques de cuivre, il est inconcevable qu'elle date de l'époque de Jacques Cartier. L'utilisation du cuivre en construction navale offre un indice temporel de sa réalisation, une date charnière certifiant que le vaisseau fut assemblé *a posteriori*, après une date fixe, ce que l'on appelle un terminus *post quem*. Un sommaire historique de l'avènement du cuivre en construction navale permettra de proposer une datation très relative de l'épave.

Depuis l'utilisation du bois pour la fabrication d'embarcations maritimes, les tarets (*teredo navalis*), petits bivalves marins que l'on peut considérer comme le termite de la mer, attaquent et détruisent les éléments de charpente des navires. Depuis l'antiquité, les constructeurs ont tenté de contrer leurs effets. Ils ont doublé, voire triplé, l'épaisseur des planches formant la coque. Ils ont également utilisé de nombreux produits pour recouvrir l'extérieur des navires et recouvert la coque de feuilles de plomb et enfin de cuivre.

Des nombreuses méthodes utilisées, le recouvrement de la coque par des plaques de cuivre fut celle la plus utilisée avant l'avènement de la construction des coques de navire en fer. L'invention du recouvrement de la coque par le cuivre serait attribuée à MM. Robinson et Hanksbee en 1728. Une fois partiellement carbonisée et recouverte d'huile, la coque pouvait être recouverte de feuilles de cuivre, de laiton et d'étain. Il faudra attendre en 1761 avant que la marine britannique utilise le procédé sur la frégate *HMS Alarm* (New York Time, 1884).

Un effet secondaire au recouvrement des coques de navires par des feuilles de cuivre est l'altération rapide des fixations en fer utilisées dans la construction du navire. Le cuivre et l'eau salée créaient un milieu propice à la migration des ions de fer, résultant en la dégradation des tiges et boulons et, par conséquent, à la déstructuration du navire. Afin de contrer cet effet, les charpentiers ont commencé à utiliser des tiges en cuivre dans la construction des navires. De nombreuses expériences ont eu lieu avec différentes proportions de cuivre, zinc et fer. En 1779, le « cuivre chinois » était testé avec un fort pourcentage de zinc. En 1783 étaient brevetés différents modes de fabrication de tiges en cuivre qui deviennent rapidement la norme. À partir de cette date, la marine anglaise utilisa ce mode de fixation pour tous ses nouveaux navires de moins de 44 canons (McCarthy, 2005). Le cuivre demeure en utilisation jusqu'à l'apparition de la coque de navire en fer.

Les vestiges de carène observables étaient recouverts de plaques de cuivre (photo 2). Une plaque mesurée faisait 117 cm de longueur pour une largeur de 35 cm (46 pouces de longueur par 14 pouces de largeur). Considérant que les feuilles de cuivre devaient se superposer aux extrémités, la dimension enregistrée sur l'épave rappelle les dimensions des plaques de cuivre utilisées sur le navire *HMS Victory*, dont la construction s'est terminée en 1765, qui mesuraient 122 cm de long par 35 cm de large. Il fallut environ 3 500 feuilles de cuivre pour recouvrir la coque de ce navire qui existe toujours aujourd'hui (Callcut : 2013).

Du fait que l'épave de l'Île au Chien est recouverte de plaques de cuivre, il devient alors peu probable qu'elle ait été construite avant 1761, date à laquelle le cuivre devient usité en construction de navires.



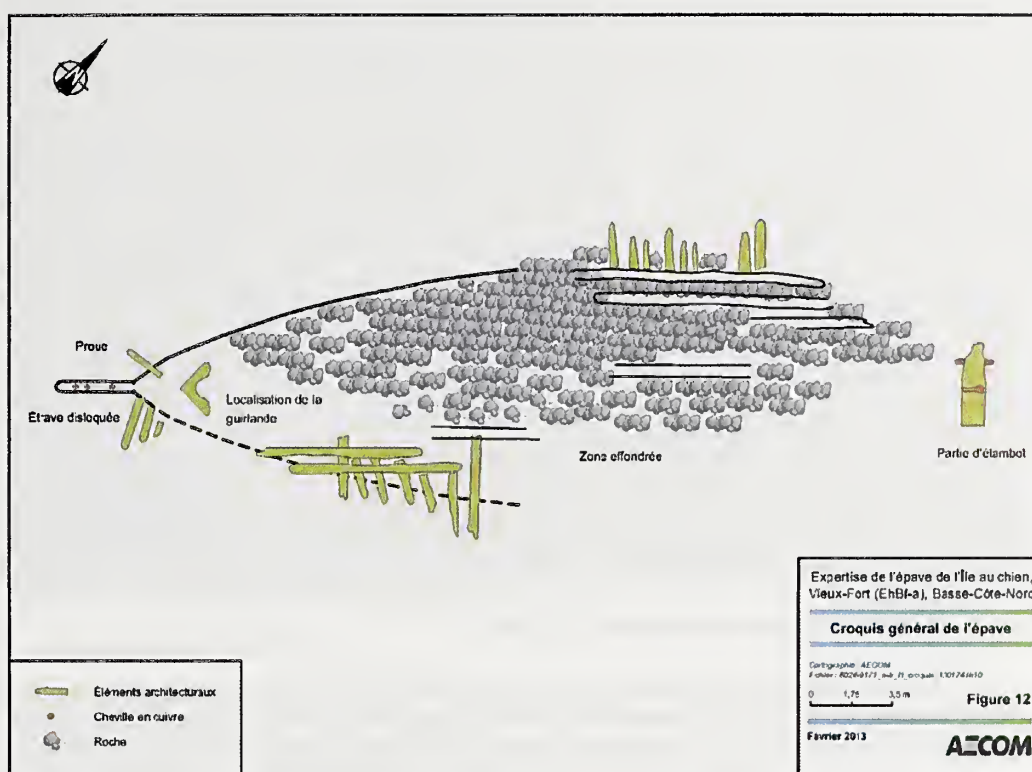
Photo 2 : Détail d'une plaque de cuivre recouvrant la coque du navire

3.3 Description générale des vestiges

3.3.1 L'épave

La description de l'épave provient de l'information amassée par l'équipe de la Smithsonian Institution lors d'une plongée d'expertise de l'épave (figure 13). L'enregistrement des éléments architecturaux de l'épave a été réalisé par six plongeurs au cours d'une seule plongée. Au cours de cette plongée, un binôme se consacrait à l'enregistrement général des vestiges en réalisant un plan d'ensemble de l'épave. Un second binôme se consacrait à l'enregistrement de différents éléments caractéristiques de l'architecture tandis que le troisième binôme s'appliquait à l'enregistrement vidéo et photographique de l'épave. Ces derniers ont également réalisé une prospection sous-marine de la baie et l'inspection d'un monticule de pierres de lest situé à une trentaine de mètres de l'épave.

L'enregistrement des éléments architecturaux réalisé en moins d'une heure ne permet qu'une description minimale des vestiges d'épave qui reposent au fond. Ainsi, une observation générale de l'épave indique que la partie de la carène du navire visible repose sur sa quille, sa superstructure est ouverte avec certaines parties de flanc disloquées qui jonchent le pourtour du squelette central. La proue se tient fièrement encore debout sur une hauteur d'environ 4 m malgré le fait que l'étrave est arrachée et repose, en eau libre, à la verticale devant le navire. À la proue, la carène est constituée d'un bordé à franc-bord recouvert de feuilles de cuivre qui ne semblent pas porter de marque de fabrication. Au centre, le navire est ouvert et présente un squelette recouvert de plusieurs centaines, voire milliers de pierres de ballast dont une partie est constituée de mâchefer. La nature du ballast varie, on croit reconnaître des pierres de grès, de granit et certainement du mâchefer. Aucun pont n'est structurellement visible, toutefois de nombreux éléments qui reposent au centre de l'épave sur le ballast seraient vraisemblablement des éléments de pont. L'ensemble des vestiges semble témoigner d'une charpente de navire sous la ligne de flottaison, soit le franc-bord ou les œuvres vives. Les membrures visibles, allonges et possiblement varangues reposent à plat de chaque côté du navire. À cet endroit, le navire qui semble s'être enfoncé dans la vase s'élève d'environ un mètre au-dessus du fond marin.



À l'arrière du navire, l'étambot est arraché de la structure et repose couché sur son côté avec sa ferrure toujours en place. Le gouvernail est absent des vestiges ou se trouve complètement enseveli. À première vue, il semblerait que les glaces aient ouvert le navire ou qu'une récupération ait été faite ultérieurement au naufrage tant on dirait que le navire fut éventré. De nombreuses pièces de bois reposent sur le ballast, il semblerait que la structure du premier pont se soit effondrée sur la carène.



Photo 3 : Pièces de charpente disloquées de l'épave

La conservation des pièces visibles est problématique tant pour l'enregistrement que pour l'interprétation. Il a été difficile, voire impossible, de faire l'enregistrement des dimensions des pièces architecturales visibles. Par endroits, le bois n'était présent qu'autour du chevillage ayant aidé à sa préservation, comme illustré à la photo suivante.

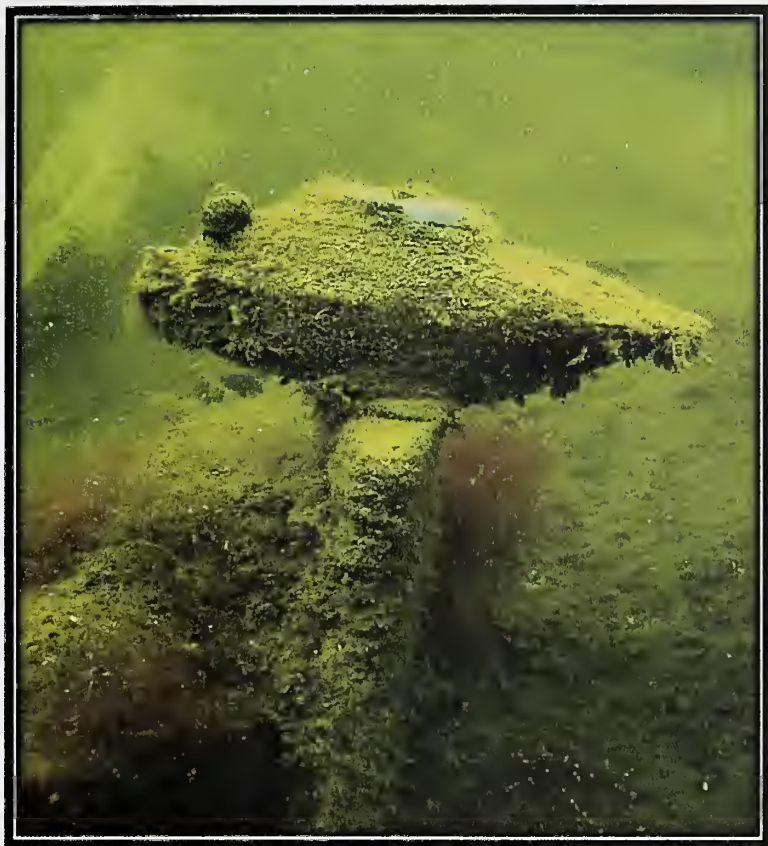


Photo 4 : Éléments architecturaux érodés

3.3.2 Description architecturale

Plusieurs centaines de pièces de bois, soit disloquées de l'épave, soit toujours assemblées, constituaient la charpente existante au fond. De cet ensemble complexe, seuls quelques éléments purent être expertisés. Certaines de ces pièces sont présentées dans les paragraphes suivants. La terminologie spécialisée utilisée et la définition des différents éléments présentés proviennent des ouvrages de Christophe Borzeix, de Michel Desgagnés ainsi que du Dictionnaire multilingue du Capitaine Henry Paasch.

3.3.2.1 Carlingue

Comme mentionné précédemment, la carlingue est une pièce maîtresse de la charpente axiale placée directement au-dessus de la quille sur les varangues. Sur l'épave, il était possible d'observer ce qui semble être un écart de la carlingue. Il est d'une largeur totale de 30 cm et d'une hauteur de 29 cm avec une rainure en son centre de 12 cm de largeur et creusée sur une profondeur de 11 cm dans son axe longitudinal (photo 5). Les bords, de chaque côté de la rainure, sur sa face supérieure, présentaient les vestiges de clous en fer. À la limite de ce qui semble être un écart ou une mortaise d'épontille, il est possible d'observer trois trous de gournable à tête perdue d'un diamètre de 3 cm (photo 6).

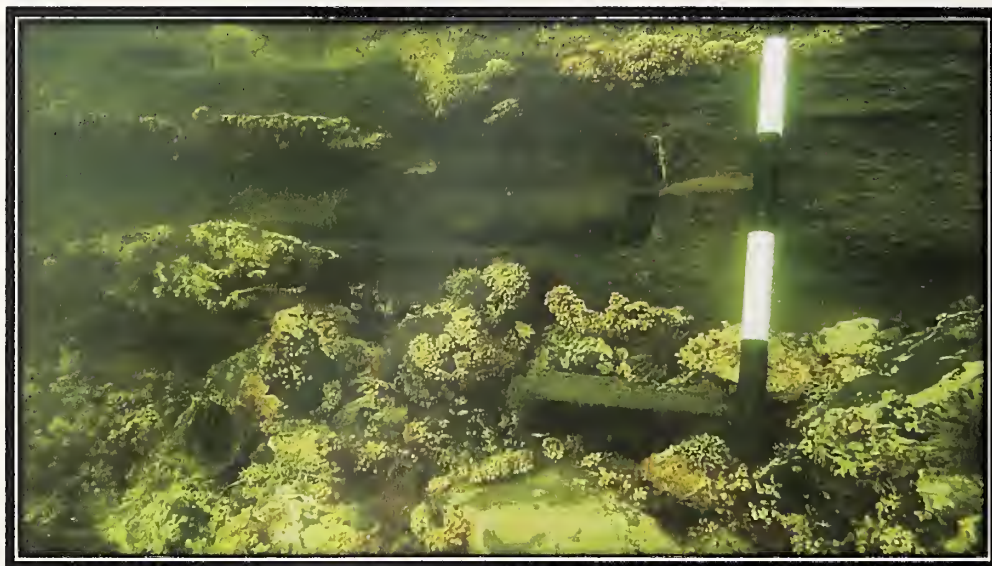


Photo 5 : Vue de la carlingue avec pierres de ballast



Photo 6 : Détail de l'écart de carlingue ou de la mortaise d'épontille

3.3.2.2 Étambot

Une des pièces considérées comme pièce maîtresse à la construction du navire est l'étambot, un élément qui forme la partie arrière de la charpente du navire et sur laquelle repose le gouvernail. Couché sur son côté, l'étambot était situé à la limite nord-est du vestige. Il présentait un femelot de cuivre toujours en place. De nombreuses tiges de cuivre étaient visibles tant dans son axe longitudinal qu'axial. La pièce mesure 283 cm de longueur pour une largeur résiduelle 133 cm. Une partie de la pièce est toujours recouverte d'une plaque de cuivre.

La pièce présente de nombreuses tiges en cuivre qui devaient certainement permettre la liaison du contre-étambot.



Photo 7 : Femelot d'étambot de face



Photo 8 : Femlot d'étambot de côté

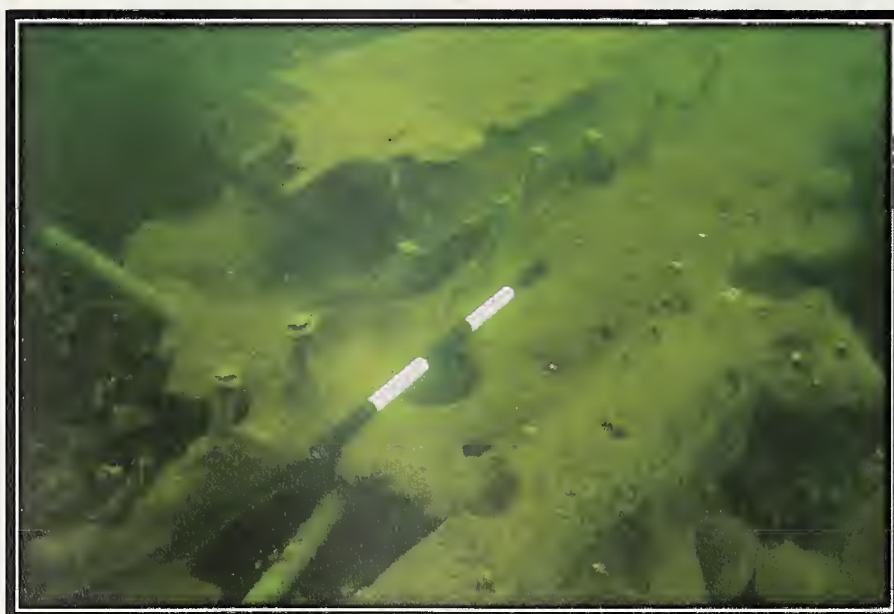


Photo 9 : Étambot et son mode de liaison à la coque

3.3.2.3 Allonges

Les allonges visibles situées du côté tribord au centre du navire étaient partiellement ensevelies. D'une longueur résiduelle de 199 cm, elles étaient d'une largeur, à la face supérieure, de 25 cm. L'espacement de 31 cm entre les allonges témoigne de la maille, soit l'espace entre deux couples voisins. À la proue, la dimension des allonges était inférieure. Espacées entre elles de 15 cm seulement, elles avaient une largeur variant de 16 à 19 cm.



Photo 10 : Allonges avec dimension des mailles

3.3.2.4 Serre de bouchain

À la proue était visible ce qui semble être la serre de bouchain. Cette pièce de charpente est un élément longitudinal d'assemblage posé sur la face interne des membrures, soit à l'intérieur du navire, dans la zone du bouchain afin d'accroître la résistance de la coque à la flexion. Le bouchain se situe dans la partie ronde du navire et sépare le fond de la partie verticale de la coque, soit sa muraille. La serre faisait 32 cm de largeur pour une hauteur de 26 cm.

3.3.2.5 Guirlande de proue ou courbe

La guirlande est une pièce courbe utilisée aux extrémités du navire qui vient lier la muraille à certaines pièces de la membrure. La courbe vient quant à elle renforcer l'angle entre deux éléments de charpente. D'une longueur de 126 cm pour chaque angle, elle avait en son centre une largeur de 64 cm. Son épaisseur n'a pas été mesurée (voir croquis).

Une autre courbe, avec un renfort de fer, fut observée. D'une longueur de 78 cm, elle avait une hauteur de 60 cm pour une épaisseur de 6 cm. Sa faible épaisseur témoignerait d'une pièce de renforcement plus que d'une pièce maîtresse.

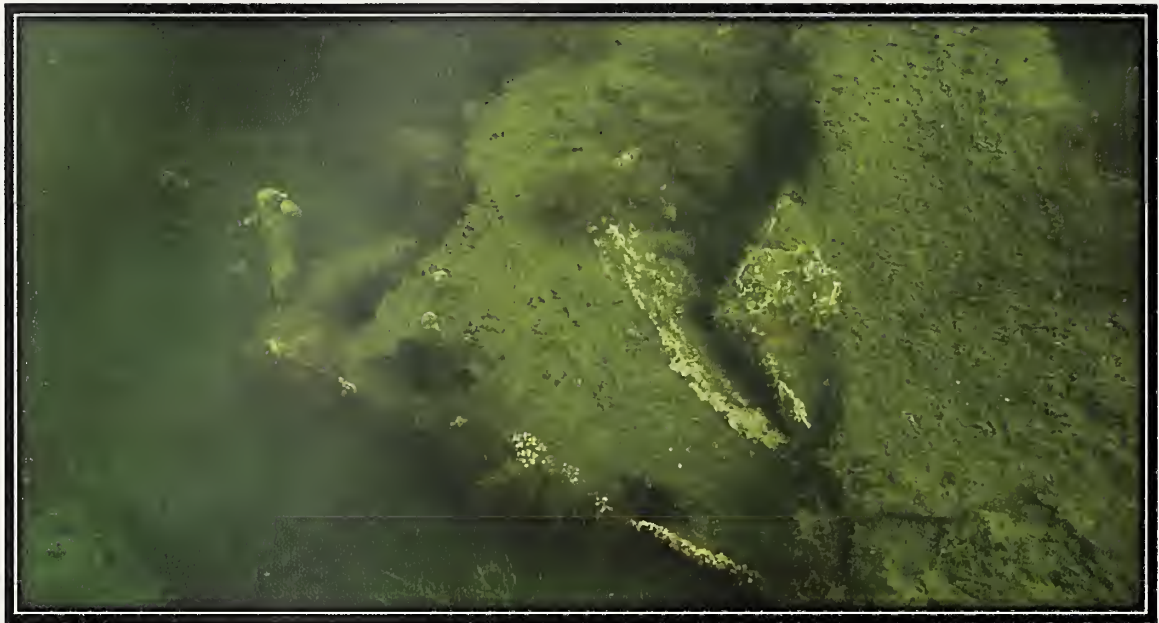


Photo 11 : Courbe avec renforcement métallique

3.3.2.6 Étrave

L'étrave était disloquée de la membrure et reposait horizontalement devant l'épave. Son état de préservation ne permettait pas d'en déterminer les dimensions. Cependant, la présence de tiges de cuivre permet de déterminer que l'ensemble de la charpente formant la proue, soit l'étrave, la contre-étrave et possiblement un marsouin et un taille-mer, devait avoir 188 cm d'épaisseur.

3.3.2.7 Bordage

Le bordage comprend l'ensemble des planches qui recouvre la coque du navire. Sur l'épave, le bordé est à franc-bord et recouvert de cuivre, ce qui rend l'observation des planches impossibles. Ainsi, la longueur et la largeur des planches sont inconnues, toutefois, en plan, la largeur des planches est de 8 cm.

3.3.2.8 Vaigres

Les vaigres recouvrent les membrures à l'intérieur du navire. Présentes sur l'épave, elles étaient souvent en mauvaise condition et recouvertes de ballast. Une vaigre de bouchain a pu être enregistrée et présentait une largeur de 18 cm.

3.3.2.9 Chevillage

Le principal mode de liaison de la charpente était l'utilisation de chevilles traversantes de cuivre. Visibles un peu partout sur l'épave, les chevilles servaient à lier les œuvres maitresses comme il est possible de voir à l'étrave et à l'étambot. Les chevilles observées avaient un diamètre moyen de 2,5 cm avec parfois une rondelle de cuivre à l'extrémité d'un diamètre de 5 cm. Une de ces rondelles portait une marque ressemblant à un « M » et un « C » séparée de deux ou trois lettres indéchiffrables. Le chiffre « 17 » aurait également fait partie de la marque. Deux types de tête cheville ont été observés et sont illustrés ici-bas. Il semble que les chevilles étaient majoritairement traversantes avec, soit une tête arrondie accompagnée d'une rondelle ou une tête rivée. L'utilisation du fer est observée pour ce qui semble être les virures de pont. Également, l'utilisation de gournable sur ce qui semble être des allonges a été observée.



Photo 12 : Cheville de cuivre avec rondelle



Photo 13 : Cheville de cuivre rivée



Photo 14 : Concrétions témoignant de l'utilisation du fer sur de possibles virures de pont

3.3.3 Un unique artefact

Un seul objet a été observé sur l'épave. Il s'agit d'un col avec goulot d'une bouteille cylindrique de bière ou de vin dont le style semble témoigner de la fin du 18^e ou du début du 19^e siècle. Possiblement d'origine anglaise, le col renflé, la lèvre nettement plus épaisse que la bague qui est rapportée et légèrement évasée vers le bas sont des caractéristiques typiques du tournant du 19^e siècle (Jones :1986). Cet artefact fut remis sur l'épave à la fin de la journée selon les recommandations du ministère de la culture et des communications.



Photo 15 : Goulot et col de bouteille

4 Conclusion et recommandations

Il est impossible de conclure en une date absolue de la construction du navire qui gît aujourd'hui au fond de la baie de l'île Bilodeau. Le peu de temps consacré à la recherche et l'analyse de ce navire permet d'hasarder une date de construction vers la fin du 18^e siècle ou le début du 19^e siècle. Le manque d'information diagnostique sur les différents éléments de la charpente empêche une interprétation raffinée.

La présence de ce qui semble être un renforcement de courbe en fer propose une date de fin du 18^e siècle malgré le fait que les Français auraient utilisé des genoux en fer dès le troisième quart du 17^e siècle (Stammers, 2001). L'utilisation du cuivre pour le recouvrement de la coque propose une date ultérieure à 1761 alors que l'utilisation du cuivre comme principal mode de chevillage avec peu d'utilisation de fer ainsi que le col d'une bouteille observée sur l'épave semblent indiquer une date relative vers le début du 19^e siècle. Enfin, le pétroglyphe de l'île au Chien semble illustrer la date de 1821 qui correspondrait assez bien avec l'épave.

Il est ainsi impossible que cette épave soit un témoin oublié du passage de Jacques Cartier lors de son avitaillement sur la Basse-Côte.

L'épave se situe dans une région éloignée des grands centres urbains et par le fait même se trouve difficilement accessible à la communauté des plongeurs sportifs. De plus, les résidents soucieux de leur patrimoine, pourvoient à sa protection. Ceci est heureux, puisque la présence de cuivre en grande quantité sur l'épave représente une valeur marchande non négligeable dans le contexte actuel du marché. Considérant la valeur marchande que représente l'ensemble du chevillage, il est recommandé de protéger cette épave facilement atteignable de par sa faible profondeur. D'un point de vue scientifique, malgré le fait qu'elle recèle très peu d'artefacts, une analyse approfondie des ses œuvres vives encore bien conservées permettrait d'accroître nos connaissances techniques d'architectures navales mais plus important encore, permettrait d'ajouter un chapitre à l'histoire de la Basse-Côte-Nord à une période qui semble peu documentée.

5 Bibliographie

- BELLIN, JACQUES-NICOLAS. 1745. *Partie orientale de la Nouvelle France ou du Canada*. Bibliothèque nationale de France, département Cartes et plans, CPL GE DD-2987 (8581 BIS B).
<http://gallica.bnf.fr/ark:/12148/btv1b67000827>
- BELLIN, JACQUES-NICOLAS. 1753. *Suite de la carte réduite du Golphe de St Laurent contenant les costes de Labrador ... le détroit de Belle-Isle et partie des cotes de l'Isle de Terre Neuve / dressée au Dépôt des cartes plans et journaux de la marine*. Bibliothèque nationale de France, département Cartes et plans, CPL GE DD-2987 (8591 B). En ligne <http://gallica.bnf.fr/ark:/12148/btv1b6700092m>
- BORZEIX, Christophe. 2005. *Glossaire des termes de Marine et plus particulièrement de Construction Navale*. 82 p. En ligne : <http://christophe.borzeix.perso.sfr.fr/GlossaireMarine/Glossaire%20de%20marine.pdf>
- CALLCUT, Vin. 2002-2012. *HMS Victory Copper Sheathing*. En ligne :
<http://www.oldcopper.org/hms%20victory%20copper.htm>
- CARTIER, JACQUES. 1867. *Relation originale du voyage de Jacques Cartier au Canada en 1534. Documents inédits sur Jacques Cartier et le Canada* (nouvelle série) publiés par h. Michelant et a. Ramé. En ligne :
<http://www.gutenberg.org/ebooks/23801>
- CARTIER, JACQUES. 1863. *Relation originale de Jacques Cartier bref récit et succincte narration de la navigation faite en MDXXXV et MDXXXVI par le capitaine Jacques Cartier aux îles de Canada Hochelaga, Saguenay et autres*. Réimpression figurée de l'édition originale rarissime de MDXLV avec les variantes des manuscrits de la bibliothèque impériale. En ligne : <http://www.gutenberg.org/ebooks/12356>
- CHAVITEAU, JACQUES et SACCARDI, GILLES GABRIEL DE. 1698. *Carte de l'Isle de Terre-Neuve*. Bibliothèque nationale de France, département Cartes et plans, GE SH 18 PF 128 DIV 2 P 2
[Dhttp://gallica.bnf.fr/ark:/12148/btv1b5970323m](http://gallica.bnf.fr/ark:/12148/btv1b5970323m)
- CHAVITEAU, JACQUES. 1733. *Carte particulière de la rivière de Québec...de l'Isle de Terre-Neuve*. Bibliothèque nationale de France, département Cartes et plans, GE SH 18 PF 128 DIV 2 P 7
<http://gallica.bnf.fr/ark:/12148/btv1b5970323p>
- COOK, JAMES. 1770. *A chart of the straights of Bellisle with a part...of Newfoundland and Labradore*. Bibliothèque nationale de France, département Cartes et plans, GE SH 18 PF 130 DIV 2 P 4
<http://gallica.bnf.fr/ark:/12148/btv1b5970498p>
- CORONELLI, VINCENZO MARIA. 1689. *Partie orientale du Canada ou de la Nouvelle France où sont les provinces ou pays de Saguenay, Canada, Acadie etc. les peuples ou nations des Etechemins, Iroquois, Attiquameches etc., avec la Nouvelle Angleterre, la Nouvelle Ecosse, la Nouvelle York et la Virginie, les îles de Terre Neuve, de cap Breton etc., le Grand Banc etc.* Bibliothèque nationale de France, département Cartes et plans, CPL GE DD-2987 (8579) <http://gallica.bnf.fr/ark:/12148/btv1b6700079r>
- DESGAGNÉS, M. 1977. *Les goélettes de Charlevoix*. Les Éditions Léméac. 182 p.
- DETCHEVERRY, PIERRE. 1689. *[Carte de l'île de Terre-Neuve] / Faict A plesance par Pierre Detcheuerry dorre pour Monsieur parat gouverneur de plesance et l'Isle de terreneuve*. Bibliothèque nationale de France, département Cartes et plans, CPL GE SH 18E PF 125 DIV 1 P 2 RES
<http://gallica.bnf.fr/ark:/12148/btv1b59055710>

- DHEULLAND, GUILLAUME. 1744. *D'après Bellin. Carte de l'île de Terre-Neuve*. Bibliothèque nationale de France, département Cartes et plans, CPL GE DD-2987 (8590) <http://gallica.bnf.fr/ark:/12148/btv1b67000916>
- FITZHUGH, William W et Al. de 2001 à 2012. Quebec Field Report : Gateway of St. Lawrence. En ligne: http://www.mnh.si.edu/arctic/html/pub_field.html
- GRAND QUÉBEC. 2012. *Le Mystère de Brest*. En ligne : <http://grandquebec.com/histoire/brest/>
- INCONNU-A. ind. *Terre-Neuve*. Bibliothèque nationale de France, département Cartes et plans, GE SH 18 PF 128 DIV 2 P 11/1 <http://gallica.bnf.fr/ark:/12148/btv1b5970334d>
- INCONNU-B. Ind. *Terre-Neuve*. Bibliothèque nationale de France, département Cartes et plans, GE SH 18 PF 128 DIV 2 P 6 D <http://gallica.bnf.fr/ark:/12148/btv1b59703278>
- INCONNU-C. Attribué au Sieur de Lahontan 17xx. *Carta geografica del Canada nell'America settentrionale*. Bibliothèque nationale de France, GED-1921 <http://gallica.bnf.fr/ark:/12148/btv1b8440804k>
- INCONNU-D. 1782. *Carte réduite de l'île de Terre-Neuve*. Bibliothèque nationale de France, département Cartes et plans, GE SH 18 PF 128 DIV 5 P 2 <http://gallica.bnf.fr/ark:/12148/btv1b59703812>
- INCONNU-E. 1784. *Carte réduite des bancs et de l'île de Terre-Neuve* [coloriage avec légende ms.]. Bibliothèque nationale de France, département Cartes et plans, GE SH 18 PF 128 DIV 5 P 4/2 <http://gallica.bnf.fr/ark:/12148/btv1b59703864>
- INCONNU-F. Ind. *Carte basque de l'île de Terre Neuve, de la Cadie et Canada*. Bibliothèque nationale de France, département Cartes et plans, GE SH 18 PF 128 DIV 2 P 3 <http://gallica.bnf.fr/ark:/12148/btv1b59703241>
- JONES, Olive R. 1986. *Les bouteilles à vin et à bière cylindriques anglaises 1735-1850*. Études en archéologie architecture et histoire. Ministre des Approvisionnements et Services Canada. Parcs Canada. 188 p.
- LACHANCE, ISABELLE. 2009. « La Copie d'une lettre envoyée de la Nouvelle France, ou Canada (1609) : la fiction épistolaire au service de la politique missionnaire jésuite ? ». *Tangence*, n° 90, 2009, p. 25-35. <http://id.erudit.org/iderudit/044338ar>
- LANE, MICHAEL. 1790. *The island of New Foundland*. Bibliothèque nationale de France, département Cartes et plans, GE SH 18 PF 128 DIV 2 P 14. <http://gallica.bnf.fr/ark:/12148/btv1b5970342z>
- LA RIVIÈRE BASSET. 1713. [*Détroit de Belle-Isle, Canada*]. Bibliothèque nationale de France, département Cartes et plans, CPL GE SH 18E PF 125 DIV 2 P 2 RES <http://gallica.bnf.fr/ark:/12148/btv1b59056253>
- LUCINI, ANTONIO FRANCESCO. 1661. *Carta particolare della Terra Nuova con la Gran Baia et il Fiume Grande della Canida*. Bibliothèque et Archives nationales du Québec G 3312 S5 1661 D8, CAR. <http://services.banq.qc.ca/sdx/cep/document.xsp?id=0002663544>
- MCCARTHY, M. 2005. *Ships' Fastenings: From Sewn Boat to Steamship*. Texas A&M University Press. 176 p.
- MOORE, THOMAS. 1714. *Carte gennerale, depuis la rivière des hommes jusqu'à Beslisle*. Bibliothèque nationale de France, département Cartes et plans, CPL GE SH 18E PF 125 DIV 2 P 3 RES <http://gallica.bnf.fr/ark:/12148/btv1b5905626h>

- NEW YORK TIMES. 1884. *The First Copper Sheathing*. January 6, 1884. Consulté en juin 2011. [En ligne] : <http://query.nytimes.com/mem/archive-free/pdf?res=F00C11FB3E5C15738DDDAF0894D9405B8484F0D3>
- NIELLON, f. 1995. *S'établir sur la terre de Cain. Brador : Une tentative canadienne au XVIIIe siècle*. 223 p. En ligne : <http://www.mcc.gouv.qc.ca/fileadmin/documents/publications/patrimoine/archeologie/TerreCain.pdf>
- OLLIVIER, PAUL. 1624. [Carte de l'Océan Atlantique Nord] / Faite a Grâce par Paul Ollivier année 1624. Le Havre. Bibliothèque nationale de France, département Cartes et plans, CPL GE BB-246 (I,30-31RES) <http://gallica.bnf.fr/ark:/12148/btv1b5901205q>
- PAASCH, H. 1885. *De la quille à la pomme de mâit*. Dictionnaire de marine en anglais, français et allemand. Anvers. 524 p.
- ROBERT DE VAUGONDY, DIDIER, 1753. *Carte des pays connus sous le nom de Canada, dans laquelle sont distinguées les possessions françaises, & angl?*. Bibliothèque et Archives nationales du Québec G 3400 1753 R6, CAR. <http://services.banq.qc.ca/sdx/cep/document.xsp?id=0002663278>
- RINFRET, GUSTAVE. 1898. *Carte de la province de Québec indiquant ses frontières nord, nord-ouest et le nord-est telles que reconnues par les Statuts du Canada*. 61 Victoria, cap. 3. Bibliothèque nationale de France, GED-4638. <http://gallica.bnf.fr/ark:/12148/btv1b84436873>
- SANSON, NICOLAS. 1656. *Le Canada ou Nouvelle France & c.* Bibliothèque nationale de France, département Cartes et plans, CPL GE DD-2987 (8547) <http://gallica.bnf.fr/ark:/12148/btv1b6700054x>
- SAYER, ROBERT. 1775. A chart of the gulf of St Laurence. Bibliothèque nationale de France, département Cartes et plans, GE SH 18 PF 130 DIV 2 P 6 <http://gallica.bnf.fr/ark:/12148/btv1b59705024>
- SR. DE COURCELLE. 1676. [Carte des côtes de Terre-Neuve] / faite à Breste le 14e janvier 1676, par le Sr. de Courcelle, lieutenant de vaisseau du Roy... ayant fait le Tour de Lylle de Tere neuve... Lesté de l'année 1675. Bibliothèque nationale de France, département Cartes et plans, CPL GE SH ARCH-23 <http://gallica.bnf.fr/ark:/12148/btv1b5901176f>
- STAMMERS, Michael K. 2001. Iron Knee in wooden vessels-an attempt at a typology. *The International Journal of Nautical Archaeology*. Vol. 30.1. pp 115 à 121. En ligne : http://www.friendsofpurton.org.uk/Docs/Fells_Patent_Knees.pdf
- STEFFY, J.R. 1994. *Wooden Ship Building and the Interpretation of Shipwreck*. Texas A&M University Press, College Station. 314 p.
- THORNTON, JOHN. 1699. *A new and correct chart of the north part of America from New Found Land to Hudson bay*. Bibliothèque nationale de France, département Cartes et plans, CPL GE DD-2987 (8561) <http://gallica.bnf.fr/ark:/12148/btv1b6700067i>

CATALOGUE PHOTOS
Expertise de l'épave de l'île au Chien, Vieux-Fort, Basse-Côte-Nord (EhBl-a)

DATE	CLICHÉ	DESCRIPTION ET COMMENTAIRES	ORIENTATION
16 août 2012	IMG_3344	Élément du bordage	-
16 août 2012	IMG_3345	Cheville de cuivre	-
16 août 2012	IMG_3346	Extrémité de membrures	-
16 août 2012	IMG_3347	Extrémité de membrures	-
16 août 2012	IMG_3348	Charpente disloquée de l'épave	-
16 août 2012	IMG_3349	Guirlande de proue ou courbe avec renforcement métallique	-
16 août 2012	IMG_3350	Membrures a fond	-
16 août 2012	IMG_3351	Membrures et possible courbe	-
16 août 2012	IMG_3352	Cheville et élément de charpente érodé	-
16 août 2012	IMG_3353	Cheville avec rondelle	-
16 août 2012	IMG_3354	Chevilles avec rondelle	-
16 août 2012	IMG_3355	Cheville avec rondelle	-
16 août 2012	IMG_3356	Cheville rivée	-
16 août 2012	IMG_3357	Détail du ballast	-
16 août 2012	IMG_3358	Ballast et membrure avec loquette en fuite	-
16 août 2012	IMG_3359	Poupe avec étambot et chevilles de la contre-étambot	-
16 août 2012	IMG_3360	Ferrure d'étambot, femelot	-
16 août 2012	IMG_3361	Loquette	-
16 août 2012	IMG_3362	Ulvaire ?	-
16 août 2012	IMG_3363	Vincent et Sarai	-
16 août 2012	IMG_3366	Membrure	-
16 août 2012	IMG_3367	Membrure (floue)	-

CATALOGUE PHOTOS
Expertise de l'épave de l'île au Chien, Vieux-Fort, Basse-Côte-Nord (EhBl-a)

DATE	CLICHÉ	DESCRIPTION ET COMMENTAIRES	ORIENTATION
16 août 2012	IMG_3368	Membreure (floue)	-
16 août 2012	IMG_3369	Détail de l'étrave (floue)	-
16 août 2012	IMG_3370	Détail de l'étrave (floue)	-
16 août 2012	IMG_3371	Détail de l'étrave (floue)	-
16 août 2012	IMG_3372	Détail de l'étrave (floue)	-
16 août 2012	IMG_3375	Marie-jo et Mathieu en train de prendre des mesures	-
16 août 2012	IMG_3376	Marie-jo et Mathieu en train de prendre des mesures	-
16 août 2012	IMG_3377	Cheville avec rondelle	-
16 août 2012	IMG_3378	Marie-jo au travail	-
16 août 2012	IMG_3379	Marie-jo et Mathieu en train de prendre des mesures	-
16 août 2012	IMG_3380	Membreures avec concrétion de chevilles de fer	-
16 août 2012	IMG_3381	Concrétion de chevilles de fer	-
16 août 2012	IMG_3382	Attrition de membreure autour d'une cheville	-
16 août 2012	IMG_3383	Tanches sur l'épave	-
16 août 2012	IMG_3384	Ballast et membreures	-
16 août 2012	IMG_3386	Élément architectural avec cheville de cuivre	-
16 août 2012	IMG_3387	Détail d'une pierre de ballast (floue)	-
16 août 2012	IMG_3388	Fernelot d'étambot	-
16 août 2012	IMG_3389	Pierres de ballast à 50 mètres de l'épave	-
16 août 2012	IMG_3390	Pierres de ballast à 50 mètres de l'épave	-
16 août 2012	IMG_3392	Christina Leece	-
16 août 2012	IMG_3393	Haut de cruche du 19 ^{ème} siècle	-

AECOM

CATALOGUE PHOTOS Nom du projet : 60269171-Épave (EhBl-a)

CATALOGUE PHOTOS
Expertise de l'épave de l'île au Chien, Vieux-Fort, Basse-Côte-Nord (EhBl-a)

DATE	CLICHÉ	DESCRIPTION ET COMMENTAIRES	ORIENTATION
16 août 2012	IMG_3394	Femlot d'étambot	-
16 août 2012	IMG_3395	Tiges de cuivre du contre-étambot	-
16 août 2012	IMG_3396	Pierres de ballast en mâchefer de l'épave	-
16 août 2012	IMG_3397	Détail d'une pierre de ballast en mâchefer de l'épave	-
16 août 2012	IMG_3398	Carlingue	-
16 août 2012	IMG_3399	Détail de la carlingue	-
16 août 2012	IMG_3400	Plaque de cuivre du bordé	-
16 août 2012	IMG_3401	Plaque de cuivre du bordé	-
16 août 2012	IMG_3402	Plaque de cuivre du bordé	-
16 août 2012	IMG_3403	Plaque de cuivre du bordé	-
16 août 2012	IMG_3404	Plaque de cuivre du bordé	-
16 août 2012	IMG_3405	Plaque de cuivre du bordé	-
16 août 2012	IMG_3406	Plaque de cuivre du bordé	-

À propos d'AECOM

AECOM est un fournisseur mondial de services techniques professionnels et de gestion-conseil sur une grande variété de marchés comme le transport, le bâtiment, l'environnement, l'énergie, l'eau et les services gouvernementaux. Avec quelque 45 000 employés autour du monde, AECOM est un leader sur tous les marchés clés qu'elle dessert. AECOM allie portée mondiale et connaissances locales, innovation et excellence technique afin d'offrir des solutions qui créent, améliorent et préservent les environnements bâtis, naturels et sociaux dans le monde entier. Classée dans la liste des compagnies du Fortune 500, AECOM sert des clients dans plus de 130 pays et a enregistré des revenus de 8,2 milliards de dollars pour la période de douze mois se terminant le 30 septembre 2012.

Des renseignements supplémentaires sur AECOM et ses services sont disponibles au www.aecom.com. Suivez AECOM sur Twitter à @AECOM

AECOM
221, boulevard La Salle
Baie-Comeau (Québec) Canada G4Z 1S7
Tél : 418 298-2545
Téléc. 418 298-2333
www.aecom.com

7- Underwater Survey Report of Select Brador Environs

by Erik Phaneuf

One of the goals of the 2012 field season was to survey the Brador Bay vicinity for other potential underwater Basque sites. The Brador Bay region has been occupied by Europeans since the 17th century (Niellon 1995), and there is substantial evidence of Basque activity around Blanc Sablon in the form of roof tiles in the Hart site, a large Inuit village near the mouth of the Brador River, to suggest the Basques traded with local inhabitants and may have occupied the territory for their whaling and fishing operations (Pintal 1998).

The most economical way to survey for underwater traces of occupation or wrecks is to do the equivalent of underwater surfing over the bottom. This is most easily done by pulling a diver behind a skiff at the end of a long rope tied to a wooden board that the diver can manipulate to serve as a diving plane. For our expedition,



Fig 1.130: In the water, note depth-finder at bottom of image.

while Christie Leece kept a log reading of the water depth as determined by a portable depth-finder, Bill Fitzhugh drove the skiff and a third party inside the skiff constantly kept his eyes on the divers.

We constructed two diving planes from plywood as illustrated in. Mathieu Mercier Gringas and Marijo Gauthier-Bérubé as well as Vincent Delmas and Saraí Barreiro Arguelles used the diving plane boards to control their depth and direction while being pulled behind the boat.

The Brador Bay survey particularly targeted the protected coves that may have served as ship anchorages. One section of the bay, east of Ile du Paresseux was surveyed because

its depth was sufficient to accommodate large vessels. A hand held Garmin GPS was used to record the survey track and record the distance covered. In this section of the bay, 5.3 kilometers of combined transect was dove in an average of 20 to 50 feet of water. Sadly, no significant discovery was made.

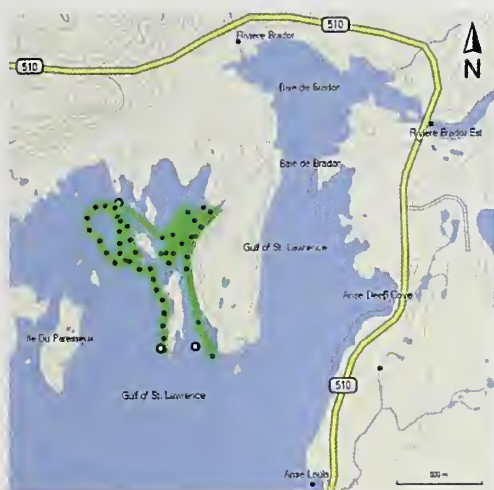


Fig 1.132: Saraí and Vincent with the now-tested boards.

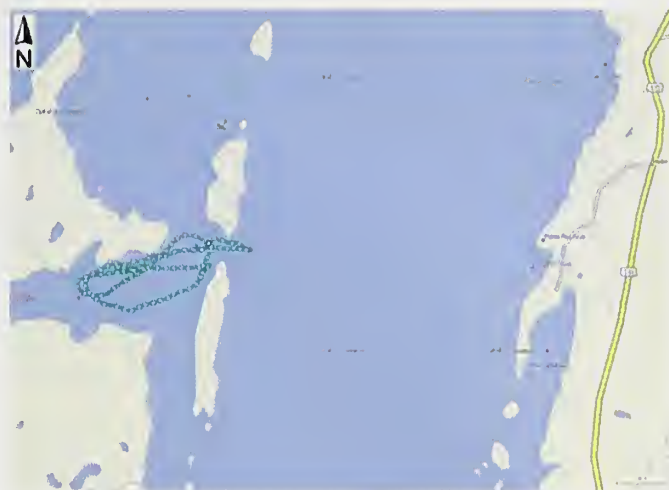


Fig 1.131: Mathieu and Marijo before their first survey.

The other area prospected was in Bassin Bay. This area is known, along with Frigate Bay, to be a safe harbour for all easterly and southerly winds. Furthermore, Bassin Bay was host to a maritime tragedy we heard about from local inhabitants, thought to be S.V. Daisy, which sank on July 23, 1923 (Napoleon Martin, personal information) . In this survey area, we logged 2.3 kilometers at an average depth of 30 to 50 feet. No significant discovery was made, though the bay is littered with patches of cod bones or whale bones and numerous concentrations of broken clay pipes and common ceramics, all dating from the 19th century.



*Fig 1.133:
Survey routes
of Brador
(right) and
Bassin (left)
bay.*



At the entrance of Frigate Bay, what is left of the wreck was found near the shore inside northeast entrance of the harbour in less than 15 feet of water. Most of the wooden frames of the ship are lying toward the center of the bay at a depth of 40 to 60 feet. Most of the mechanical parts are still visible, but are concreted to the rocky bottom. The crankshaft and metal reinforcement of the propeller shaft are still recognizable along with undifferentiated iron parts littering the bottom. Most of what's left of the wooden frames are dismembered and are lying unorganised in greater depth toward the center of the bay.

Even though numerous artifacts were observed at the bottom, this field season's prospection did not permit the discovery of a new Basque or early French occupation site inside the waters of Brador Bay. A more extensive survey using remote sensing equipment is recommended as the next phase of future underwater survey in this important historical region.



*Fig 1.134:
Marijo be-
side crank-
shaft (left)
and broken
frame of S V
Daisy (right)*



Bibliography

Niellon, Françoise, 1995. S'établir sur la terre de Caïn. Brador: Une tentative canadienne au XVIIIe siècle. 223 p.
En ligne : [Http://www.mcc.gouv.qc.ca/fileadmin/documents/publications/patrimoine/archeologie/TerreCain.pdf](http://www.mcc.gouv.qc.ca/fileadmin/documents/publications/patrimoine/archeologie/TerreCain.pdf)

Pintal. Jean-Yves, 1998. Aux frontières de la mer : la préhistoire de Blanc-Sablon. Gouvernement du Québec. Ministère de la culture et des communications. 418 p.

SMITHSONIAN LIBRARIES



3 9088 01993 0023